

DUVALL, ANDRÉ CHARLES, D.M.A. The Development and Application of Keyboard Fingering Principles in the Music of J. S. Bach and C. P. E. Bach: An Analysis in Comparison with Modern Approaches to Fingering, and the Utilization of the J. C. Bach-Ricci *Method* for Nurturing a Versatile Technique in the Early Stages of Study. (2014)
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This study seeks to deduce principles of fingering practiced by keyboardists in eighteenth-century Germany as developed from, and as an improvement upon, earlier practices, to assess the benefits of these principles in comparison with representative examples of fingerings given in modern keyboard editions of eighteenth-century literature, and to demonstrate the application of these principles to appropriate intermediate repertoire. Moreover, as a corrective to deficiencies observed in many modern elementary piano methods resulting from the restricted presentation of variations in articulation and figuration inherent in keyboard music, particularly in regard to fingerings that facilitate efficient realization of these elements, this study provides templates for supplemental pedagogical exercises, both original and inspired by the J.C. Bach-Ricci *Method*, allowing teachers to expose students to a diversity of touches and fingering combinations in the early stages of study. Through study and practice of fingering concepts in the works of Johann Sebastian Bach and Carl Philipp Emanuel Bach, and by incorporating the pedagogical opportunities found in the Bach-Ricci *Method*, students and teachers will improve their ability to creatively interpret a range of musical styles. Furthermore, by increasing their awareness of the multifarious touches and fingering combinations possible at the keyboard, pianists will deepen their understanding of repertoire from all time periods.

THE DEVELOPMENT AND APPLICATION OF KEYBOARD FINGERING
PRINCIPLES IN THE MUSIC OF J. S. BACH AND C. P. E. BACH: AN
ANALYSIS IN COMPARISON WITH MODERN APPROACHES
TO FINGERING, AND THE UTILIZATION OF THE J. C.
BACH-RICCI *METHOD* FOR NURTURING A
VERSATILE TECHNIQUE IN THE
EARLY STAGES OF STUDY

by

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APPROVAL PAGE

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CHAPTER I
KEYBOARD FINGERING PRACTICES IN GERMANY PRIOR TO AND DURING
JOHANN SEBASTIAN BACH'S LIFETIME

Introduction

A keyboardist's choice of fingering can have a significant effect upon the realization of musical material. Because the natural constitution of the hand results in fingers of varying lengths and ranges of motion, each finger has unique limitations on its ability to cross over or turn under other fingers. Additionally, shifts of hand position can facilitate dynamic inflection of tones on a touch-sensitive instrument. Thus, different combinations of fingering and shifts in hand position can facilitate or preclude varying degrees of connectedness, detachment, and strength of tones. Because the natural state of the hand at rest is characterized by a non-stretched position of the fingers, finger motion is suppler when stretching is avoided. Moreover, the different lengths of the fingers affect their individual and collective abilities to access and shift between the raised and lowered positions of the black and white keys, respectively. Therefore, fingering choices have a direct bearing on the efficiency and ease with which various types of figuration are executed.

Fingering instructions surviving from the eighteenth century often contrast with the fingering choices suggested in modern editions of intermediate piano literature from this period. Given the direct bearing of fingering upon the efficient realization of

articulation and varied figuration, study of the advantages and disadvantages of fingering choices is crucial for keyboard students and teachers alike. This study seeks to deduce principles of fingering practiced by keyboardists in eighteenth-century Germany, to apply these principles to intermediate keyboard repertoire, and to assess their value in comparison to fingerings given in representative modern editions.

Beginning with a preliminary investigation of German fingering practices in the sixteenth and seventeenth centuries, this study first describes the foundation upon which later fingering systems developed and improved. It next explores the fingering principles of Johann Sebastian Bach and Carl Philipp Emanuel Bach through study of treatises and analysis of these composers' fingerings of original compositions. I deduce the benefits of their fingerings, namely the realization of the metrical and figural organization of the music and the economical use of motion, to propose historically-informed fingering in selected works by both composers. In two of these works, my fingering choices are discussed in critical comparison to fingering given in a representative example of a modern edition from a publisher widely respected among piano teachers of intermediate students today. I provide supplementary exercises as a means of introducing students to the fingering patterns encountered in these pieces, and as a template for teachers wishing to create preparatory exercises based on repertoire.

Intermediate students wishing to incorporate the features of eighteenth-century keyboard fingering into their technique will have an easier task if they have been exposed to variation in keyboard touch and fingering as beginners. To facilitate this process, this study concludes with an examination and endorsement of the first eleven pieces in the

Method of Johann Christian Bach and Francesco Pasquale Ricci for supplementary beginner study as a corrective to deficiencies observed in many modern elementary piano methods. Three widely used modern elementary piano methods are examined in terms of their presentation of keyboard touch, articulation, and fingering. There is a tendency in modern editions to restrict the hand to certain positions that associate particular fingers with specific keys and positions, and a predilection for a legato touch. This unnecessarily delays exposure to figuration encountered in free composition and the associated nuances of articulation, thereby increasing the difficulty of adapting to the myriad patterns presented in the repertoire. By incorporating the pedagogical opportunities found in the Bach-Ricci *Method*, students and teachers will broaden their ability to interpret a wide range of musical styles with creativity. By increasing their awareness of the multifarious touches and fingering combinations possible at the keyboard, pianists will also deepen their understanding of repertoire from all time periods.

Survey of Sources

The earliest musical source resembling a keyboard method is German in origin. The *Fundamentum* of Hans Buchner, circa 1525, codifies a nascent fingering system. From North German sources of the late sixteenth and early seventeenth centuries, a few fingering indications have survived, the salient features of which are represented in passages of music by Jan Pieterszoon Sweelinck and Heinrich Scheidemann. Some of these fingering practices were perpetuated across the sixteenth and seventeenth centuries, and are observable in sources dating from the years just prior to and during J. S. Bach's

lifetime. Two such sources are the anonymous *Wegweiser* organ tutor, published multiple times between 1689 and 1753, and Daniel Speer's *Grundrichtiger, kurtz, leicht, und nöthiger Unterricht der musicalischen Kunst (Basic Short, Easy, and Necessary Instruction in the Musical Art)*, a method book for amateurs first published in 1687. These sources are representative of the fingering instruction that was widely circulated among many German keyboard teachers and students.

Extant fingerings of Johann Sebastian Bach appear in two pedagogical works contained in the *Clavierbüchlein vor Wilhelm Friedemann Bach: a Praeambulum in G minor*, and an eight-measure piece entitled *Applicatio*. These fingerings demonstrate a mixture of earlier practices and new concepts developed by Bach. A copy of the *Prelude and Fughetta in C major*, BWV 870a, an early version of the *Prelude and Fugue in C major* from Book II of the *Well-Tempered Clavier*, survives with fingering in the hand of Bach's pupil Johann Caspar Vogler, who may have transmitted aspects of his teacher's instruction in his fingering choices, and Johann Nikolaus Forkel's biography of Bach, portions of which are based on correspondence with Bach's sons, provides insight into their father's use of the hands and fingers and his method of teaching keyboard technique.

Carl Philipp Emanuel Bach's 1753 *Essay on the True Art of Playing Keyboard Instruments* begins with a chapter dedicated to fingering, codifying what he regarded as the only good system of keyboard fingering. It contains fingering concepts that accommodate developments in musical style and in tuning systems. Given that Emanuel Bach (1714–1788) credits his father as his only teacher, the *Essay* undoubtedly transmits

aspects of his father's technique along with his own ideas. Friedrich Conrad Griepenkerl, in his preface to his 1819 edition of J. S. Bach's *Chromatic Fantasy and Fugue*, attempts to describe Bach's keyboard touch based on information he received from Forkel, one of his teachers. Griepenkerl supplements his description with simple exercises designed to facilitate the replication of Bach's touch.

In 1786, *Methode ou Recueil de connaissances elementaires pour le Forte-Piano ou Clavecin (Method or Collection of Elementary Studies for the Forte-Piano or Harpsichord)* was published in Paris and attributed to Johann Christian Bach and Francesco Pasquale Ricci.¹ This treatise contains one hundred graded instructional pieces suitable for beginning and intermediate keyboard students. The first eleven pieces feature innovative sequencing of rudimentary musical concepts, and facilitate the teaching of varied fingering principles to beginning piano students in beneficial ways not often observed in modern method books. Teachers who incorporate these concepts in their lessons will be able to cultivate in students from the earliest stages of instruction a developing awareness of the multifarious types of keyboard articulation and the associated possibilities of fingering in keyboard music from all time periods.

¹ The relative contributions of J. C. Bach or Ricci to the *Method* remain uncertain. See Chapter 5 for further discussion.

Early German Fingering Practices

Buchner's Fundamentum

Hans Buchner's *Fundamentum*, circa 1525, is the earliest surviving treatise containing information about keyboard fingering. Buchner (1483–1538) was born into a family of organists and organ builders, studied with Austrian organist and composer Paul Hofhaimer, and served as organist at Konstanz Cathedral from 1512–1526 in the service of Emperor Maximilian.² His *Fundamentum* is the earliest example of a keyboard method book, and contains instruction on playing techniques, the rudiments of musical notation, and the generation of counterpoint against *cantus firmi* lines. Certain ideas about keyboard fingering in sixteenth-century Germany as demonstrated in Buchner's *Fundamentum* are still observable in fingering practices that were in place at the time of J. S. Bach's birth.

In the first chapter of the *Fundamentum*, Buchner presents nine rules of fingering, followed by a setting of the Latin hymn *Quem terra pontus*, which includes fingering for almost every note. He claims that an awareness of fingering is one of three basic skills needed “to play with accurate, quick, and certain delicacy.”³ He states in the preface to his *Fundamentum*:

Apart from the pleasure that comfortable fingering provides the player, it also contributes greatly to faster playing. Namely, if not every key is hit with the

² Hans Joachim Marx, “Buchner, Hans,” in *Grove Music Online. Oxford Music Online*, <http://www.oxfordmusiconline.com/subscriber/article/grove/music/04236> (accessed October 2, 2013).

³ Hans Buchner, *Sämtliche Orgelwerk*, vol. 54 of *Das Erbe deutscher Musik* (Frankfurt: H. Litolf's Verlag, 1974), 1. Translation by Otha Barrow.

appropriate finger, then all sorts of things, things which would otherwise lend grace and charm, will be lost in the piece...⁴

Buchner thus recognizes that good fingering dually functions to improve physical dexterity and to support musical expression.

Buchner explains that fingering does not lend itself to many strict rules because numerous fingerings are often possible; nevertheless, he claims certain universal rules exist from which students and teachers can extrapolate their own fingering solutions for specific contexts.⁵ He clearly feels a highly codified fingering system is not practical given the multitude of options, and he desires to delegate the resolution of specific fingering issues to individual analysis. Notwithstanding these statements, Buchner's rules are often restrictive, creating default fingering for block intervals and basic melodic structures. When applied to actual music, they sometimes create inefficient motions or awkward hand positions. On the other hand, they offer many useful ideas inherent in the fingering systems that developed in later times. Certain implications of each rule are worth examining here.

The premise that determining efficient fingering for a given tone is often based on the tones that directly follow, a fundamental concept in the fingering principles of J. S. and C. P. E. Bach, is present from the earliest sources involving fingering. Buchner states in the preface, "we must therefore take care especially that we are not haphazardly placing any finger on any key, but rather the one that will lead us, in a practical way, to the next," a concept that he stresses again in his first rule:

⁴ Ibid.

⁵ Ibid.

While playing, the appropriate fingering is always to be found and learned from the following note. Because the following note always shows which fingering is to be chosen for the preceding note, the entire *tactus*⁶ is freely taken into account.⁷

Buchner's second and third rules describe how to play four ascending or descending stepwise tones in the right hand. Buchner indicates that when tones move towards the center of the keyboard, one should use fingers 4 – 3 – 2 – 3, and when tones move away from the center, one should use 2 – 3 – 2 – 3 (Fig. 1).⁸ His fourth rule states that consecutive fingers 4 – 3 – 2 – 3 should be used for RH figuration that is the equivalent of a turn figure, and that 2 – 3 – 4 – 3 should be used for the inversion of this figure (Fig. 2).⁹ His fifth rule states all of these fingering patterns are applicable in reverse order for the LH. These rules imply that the thumb is omitted for stepwise melodic figuration (i.e., a single pitch in a given voice followed by another single pitch).

⁶ *Tactus* refers to the principal accent or rhythmic unit.

⁷ Ibid.

⁸ Buchner used the numeral "1" to represent the index finger, "2" to represent the middle finger, "3" to represent the ring finger, "4" to represent the little finger, and "5" to represent the thumb. Buchner's numbering system has been transcribed to modern fingering indications in Figures 1 and 2, in which all fingers are numbered consecutively starting with "1" representing the thumb. In this paper, fingering separated by an en dash and spaces, e.g., 1 – 2, represents successive tones, whereas fingering for simultaneously struck tones is indicated with a hyphen and no spaces, e. g. 1-3.

⁹ The abbreviations "LH" and "RH" are used throughout this paper to stand for "left hand" and "right hand," respectively.

Figure 1. Buchner, *Fundamentum*, Stepwise Figuration in the Same Direction¹⁰



Figure 2. Buchner, *Fundamentum*, Stepwise Figuration with Change in Melodic Direction¹¹



Buchner's fingering shows sensitivity to figural structure, a feature also exhibited to a high degree in the Bach school of fingering. The four-note figures shown above commonly begin on the beat within musical compositions. As a result, fingers 2 and 4 often play strong portions of the beat. Paired fingerings of 2 – 3 – 2 – 3 ostensibly require the hand to shift position because finger 2 cannot easily cross finger 3, facilitating

¹⁰ Buchner, *Sämtliche Orgelwerk*, 1-2. © Copyright 1974 H. Litolf's Verlag. Reprinted by permission of C. F. Peters Corporation.

¹¹ *Ibid.*, 2. © Copyright 1974 H. Litolf's Verlag. Reprinted by permission of C. F. Peters Corporation.

natural articulations on metrically strong tones. Examples occur in mm. 1-2 in the RH in of Buchner's composition (Fig. 3).

However, this early fingering system does not consistently produce an efficient realization of figural organization. For example, in m. 2, beat 4, Buchner's alternative fingering pattern of 4 – 3 – 2 – 3 for stepwise tones in the same direction is awkward, often placing a hand shift before a weak portion of the beat. It is not clear why Buchner did not pair fingers for stepwise tones moving towards the center of the hand as he did for tones moving towards the outside of the hand (e.g., 3 – 2 – 3 – 2). In addition to the prohibition of the thumb as a possible option, Buchner's choice perhaps arises from the tendency to favor fingers 2 or 4 on the strong portions of the beat, which would not occur if 3 – 2 – 3 – 2 fingering were applied to figuration beginning on the beat. Yet the paired fingering combination of 4 – 3 – 4 – 3, which would keep finger 4 in a strong metrical position, does not appear in any of Buchner's instructions.

Figure 3. Buchner, *Quen Terra Pontus*, mm. 1-12¹²



Buchner's sixth, seventh and eighth rules concern the use of specific fingers to execute block intervals when both tones have the same duration. Thirds should be played with fingers 2 and 4, fifths and sixths with fingers 2 and 5, and octaves with the thumb and finger 5.¹³ This creates distinct articulations of block intervals. Buchner makes seemingly unnecessary statements in each of these rules, explaining in the case of sixths, for instance, that when using fingers 2 and 5 in the RH, the little finger should be used for the higher pitch and index finger for the lower pitch. It is odd to assume that anyone would attempt to play these tones using the alternative of an upside-down hand position.

¹² Ibid., 11.

¹³ Buchner does not mention fingering for fourths or sevenths.

Nonetheless, Buchner's statements are a reminder that there was no codified, standardized fingering system at this time, and that keyboard composition had not developed to the level of sophistication observed even a century later. His instructions do not assume that his audience has a preliminary understanding of even the most basic uses of the hand in relation to the keyboard.

Buchner's ninth rule states, "as far as possible, every finger of every hand should always be available for the next attack without having to lift the finger," indicating that the fingers should remain close to the keys.¹⁴ However, nothing is mentioned about a rounded hand position. Although Sebastian Bach and Emanuel Bach allowed much more freedom in the variety of fingering used for block intervals, in certain contexts they also used repeated fingering for parallel intervals as outlined by Buchner.

Buchner demonstrates the application of his fingering rules in his hymn setting (Fig. 3). His fingerings generally allow for a successful realization of the score, but his rigid application of rules creates some significant problems. In numerous instances, the fingering makes it impossible to hold a sustained tone for more than half of its value, and occasionally it only permits an even shorter duration. In m. 10, adherence to the use of finger 2 on strong beats results in the early release of the half note G. Even if one's hand were large enough to hold the G longer, this would cause an awkward stretch. Buchner's score indicates that keyboardists at this time understood that a middle voice can sometimes be passed between the hands. However, the rigid application of Buchner's rules causes treacherous leaps that could be avoided by a freer transference of the middle

¹⁴ Ibid., 3.

voice between hands. For example, the E in the middle voice in beat 3 of m. 9 could easily be given to the RH if the thumb were allowed to participate, preventing a downward leap of a ninth from finger 3 to finger 4 in the LH. Likewise, in m. 10 the RH must leap up a seventh from finger 3 on a B-flat at the end of beat 2 to finger 2 on an A, a motion avoided by assigning the B-flat to the LH thumb. In m. 4, the C on beat 4 is impossible to play if one does not assign the middle voice to the RH. Measure 4, beat 2 and m. 9, beat 1 demonstrate how a voice must be dropped immediately because of an ascending or descending inner voice. These situations imply that Buchner was less concerned with the duration of long tones than composers in later centuries would be. One must infer from these fingerings that the prevailing touch was significantly detached.

Fingering principles in the *Fundamentum* demonstrate a rudimentary use of the fingers that is insufficient for executing complex figuration. Indeed, this fingering system is inadequate for most eighteenth-century music, and gives no instructions for fingering arpeggiated figuration, but it generally serves the texture and desired articulation of keyboard music in Buchner's time. Sandra Soderlund suggests that the *Fundamentum* represents a compilation of common practices both during and before Buchner's time, showing how his fingering rules fit patterns in earlier music more comfortably than his own musical example.¹⁵ The *Fundamentum* demonstrates Buchner's awareness of the need to educate keyboardists about fingering. Despite their limitations, his rules show the existence of basic premises of fingering in the sixteenth century, some of which continued to influence fingering systems in later times.

¹⁵ Soderlund, *Organ Technique: An Historical Approach*, 2nd ed. (Chapel Hill, NC: Hinshaw Music, Inc., 1986), 11.

Sweelinck and North German Composers

No treatise on keyboard performance practice survives from North German composers of the late sixteenth and early seventeenth centuries. However, some fingered passages survive in portions of pieces in manuscripts and publications. Among these are pieces written by Dutch composer Jan Pieterszoon Sweelinck (1562–1621) and his pupil Heinrich Scheidemann (1595–1663).¹⁶ The fingering patterns for scales and block intervals in these works are congruent with patterns observed in various anonymous German manuscript sources and may thus be assumed to be representative of certain fingering concepts that prevailed in Germany at this time.¹⁷ Like the *Fundamentum*, these fingerings make ample use of paired fingers and preferential use of certain fingers for tones in metrically strong positions. In contrast to the *Fundamentum*, finger 3 is favored in the RH in strong metrical positions, and there is a somewhat increased use of finger 5 and the thumb, which better prepares the hand for subsequent figuration.

Although each of the sources endorses paired fingerings, they do not always display the same pairs of fingers for similar passagework, nor is there consistent agreement as to which finger to place on a strong portion of the beat when using paired fingering for scalar passagework. This indicates that while paired fingering was accepted as a basic fingering technique, it was realized in multiple ways. In the RH, pairings of fingers 3 and 4 or fingers 2 and 3 are commonly used for ascending stepwise passages,

¹⁶ Transcription by Harald Vogel from Jan Pieterszoon Sweelinck, *Complete Keyboard Works*, ed. Harald Vogel (Wiesbaden: Edition Breitkopf, 2005) 1:101.

¹⁷ Soderlund, *How Did They Play? How Did They Teach? A History of Keyboard Technique* (Chapel Hill, NC: Hinshaw Music, Inc., 2006), 27-31.

and pairings of fingers 3 and 2 are used for descending passages. In the LH, the most common combinations occurring are fingers 1 and 2 or fingers 2 and 3.

Figure 4 shows a representative passage of fingered melodic figuration in a toccata of Sweelinck. Finger 3, as opposed to finger 2, is used with great frequency in metrically strong positions in the RH. These fingerings incorporate finger 5 and the thumb into passagework to a limited degree. The use of finger 1 or 5 minimizes unnecessary hand position shifts at the boundaries of scalar runs and figuration outlining chords. A few passages show how Finger 5 is used to make a large leap easier to manage. For example, in the final measure of Figure 4, the RH figure of four descending sixteenth notes is fingered with 3 – 2 – 3 – 2. When the same figure appears an octave higher, it is fingered with 5 – 4 – 3 – 2. In the LH, paired fingerings of 2 – 1 occur fairly frequently in ascending scalar passages, and fingers 2 and 4 are the most common choices for tones falling on the beat.

Figure 4. *Sweelinck, Fingered Passages in Toccata in A minor*¹⁸



Wegweiser

Published in Augsburg on at least twelve occasions in six different editions between 1689 and 1753, the *Wegweiser* organ tutor was widely circulated in Germany. Although the work does not list a specific author, its preface states that this method book was “compiled by several good friends and admirers of music.”¹⁹ The first section of this collection of pieces and instructional texts addresses the fundamentals of keyboard playing, and shows fingering patterns commonly taught during Bach’s lifetime.

Long ascending and descending scales are first presented outside of a metrical and rhythmic context. Thus, they do not reveal which fingers are used in strong metrical positions. Showing similarity to fingering examples in pieces by Sweelinck and his pupil, the *Wegweiser* recommends the paired use of fingers 3 and 4 for RH ascending and

¹⁸ Soderlund, *How Did They Play?*, 31. © Copyright 2006 Hinshaw Music, Inc. Reprinted by permission.

¹⁹ *Ibid.*, 125.

LH descending scales, of fingers 3 and 2 for RH descending scales, and of fingers 2 and 1 for LH ascending scales. Fingered passages that appear further into the manual do not reveal a preference for any one finger for placement on the beat.

There are several instances in which leaps within a running passage are executed with adjacent fingers or even the same finger. Soderlund states that these fingerings outline the figural organization of sixteenth notes as well as the beat because they produce articulations.²⁰ However, they also create difficult hand position shifts in places where the help of additional fingers could easily be employed while still facilitating articulation. Therefore, it is probable that these fingerings arose more from the following of traditional approaches to fingering, such as pairing of fingers and avoidance of fingers 1 and 5, than in an attempt to provide efficient means of creating articulations. The *Wegweiser* patterns do allow fingers 5 and 1 to participate in running passagework, but their use is limited. These fingerings reveal inconsistencies in the execution of stepwise tones moving in the same direction, frequently using three adjacent fingers in addition to fingering pairs. In Figure 5, the first four ascending stepwise sixteenth notes followed by a descending sixth are fingered with 2 – 3 – 4 – 3 – 2, but the identical passage three beats later uses 2 – 3 – 4 – 5 – 2.

²⁰ Ibid., 127.

R.H.  L.H. 

R.H. 

The fingerings given in the introductory scale and interval charts of the *Wegweiser* are mostly consistent with the set of fingering rules given by Daniel Speer (1636–1707) in his 1687 method book, *Grundrichtiger, kurtz, leicht, und nöthiger Unterricht der musicalischen Kunst* (*Basic, Short, Easy, and Necessary Instruction in the Musical Art*).²² Expanded and republished in 1697, Speer’s publication is one of the first instructional manuals directed toward amateur musicians. This consistency suggests that the *Wegweiser* is an accurate representation of common fingering practices that were taught by local keyboard teachers during this era. One difference between the two sources involves the fingering for LH ascending scales, in which Speer advocates pairing fingers 2 and 3 instead of the thumb.

²² Craig L. George Lister, "Traditions of Keyboard Technique from 1650 to 1750" (Ph.D. diss., University of North Carolina, 1979), 72-3.

In a critical review of the *Wegweiser* published in the 1739 edition of *Neu musikalische bibliothek*, J. S. Bach's student Lorenz Christoph Mizler states:

The first part deals with the most basic fundamentals of music, especially fingering, which however I do not like at all. Anyone who does not know how to use his fingers better than this will scarcely be able to learn to play at the keyboard the Partitas of our famous Herr Bach of Leipzig.²³

Mizler's statement reveals that contemporary fingering practices, and therefore many of the early fingering practices from which they evolved, were rendered insufficient in light of current developments in compositional style. The increase in the complexity of keyboard music during J. S. Bach's life, in terms of its melodic and contrapuntal sophistication and use of keys with many accidentals, required new systems of fingering. Bach retained the best aspects of the early fingering techniques while discarding others, synthesizing earlier practices with new ideas to create a system of fingering suitable for expressing his keyboard music. The following chapter seeks to infer Bach's fingering principles by analyzing fingering indications in two original sources and one source of indirect transmission, in conjunction with written descriptions of his hand and finger technique.

²³ Paul Walker, "Fingering, Bach, and the Wegweiser," *Early Keyboard Studies Newsletter* 1, no. 3 (June 1985): 4.

CHAPTER II

PRINCIPLES OF FINGERING IN THE WORK OF JOHANN SEBASTIAN BACH

The work of Johann Sebastian Bach most closely resembling a keyboard method book is the *Clavierbüchlein vor Wilhelm Friedemann Bach*. Written for his nine-year old son, it contains a description of clefs, a table explaining the realization of ornaments, and a mix of various keyboard compositions entered over the course of several months in the hands of both father and son.²⁴ The only extant fingering indications in the hand of J. S. Bach are found in two pieces in the *Clavierbüchlein*. The first piece encountered is an eight-measure work entitled *Applicatio*, extensively fingered. While not terribly difficult, the *Applicatio* requires technique clearly too sophisticated to be the very first piece presented to a young student. The inclusion of numerous ornaments and various instances of independent voices within in each hand presents challenges beyond the reach of a complete beginner. In his biography of J. S. Bach, Johann Nikolaus Forkel (1749–1818) sheds light on the instruction a beginning student of Bach might have first encountered.²⁵

The first thing he did was to teach his scholars his peculiar mode of touching the instrument, of which we have spoken before. For this purpose, he made them

²⁴ Robert L Marshall, “Johann Sebastian Bach,” in *Eighteenth Century Keyboard Music*, ed. Robert L. Marshall (New York: Routledge, 1994), 96-97.

²⁵ Although Forkel’s biography was written decades after Bach’s death, Forkel communicated with both Carl Philipp Emanuel Bach and Wilhelm Friedmann Bach. He directly quotes Emanuel in his writing, and some of his comments concerning Bach as a teacher in which he did not credit a source very possibly originated from Bach’s sons.

practice, for months together, nothing but isolated exercises for all the fingers of both hands, with constant regard to this clear and clean touch. Under some months, none could get excused from these exercises, and, according to his firm opinion, they ought to be continued, at least, from six to twelve months. But if he found that anyone, after some months of practice, began to lose patience, he was so obliging as to write little connected pieces, in which those exercises were combined together...With this exercise of the fingers, either in single passages or in little pieces composed on purpose, was combined the practice of all the ornaments in both hands”²⁶

We know from Bach’s Leipzig pupil Heinrich Nicolaus Gerber of his teacher’s graded pedagogical progression of assigning students selected inventions, then suites, and eventually preludes and fugues from the Well-Tempered Clavier.²⁷ Forkel’s comments imply that Bach had also conceived and utilized a graded progression of elementary instruction for his beginning students, the earliest stages of which have not been preserved. Some of these exercises may have been taught by rote, while others may possibly have been written out but did not survive. Forkel cites the *Six Little Preludes* and *Two Part Inventions* as examples of pieces composed (sometimes during the course of the lesson) to maintain student interest, and which Bach later polished into their present forms.²⁸

The second fingered work in the *Clavierbüchlein* is a *Praeambulum in G minor*. It is often found in modern keyboard anthologies as one of the *Twelve Short Preludes*,

²⁶ Johann Nikolaus Forkel, *Ueber Johann Sebastian Bachs Leben, Kunst und Kunstwerke* (Leipzig, 1802; fasc. ed., Frankfurt, 1950; English trans., London, 1820), quoted in Hans T. David, Arthur Mendel and Christoph Wolff, *The New Bach Reader: A Life of Johann Sebastian Bach in Letters and Documents* (New York: W.W. Norton, 1998), 453.

²⁷ Hans-Joachim Schulze, ed., *Dokumente zum Nachwirken Johann Sebastian Bachs, 1750-1800*, vol. 3 of *Bach-Dokumente*, edited under the auspices of the Bach-Archiv Leipzig as a supplement to the *Neue Bach-Ausgabe* (Leipzig and Kassel, 1963-72), quoted in David, Mendel, and Wolff, *The New Bach Reader*, 321-22.

²⁸ David, Mendel, and Wolff, *The New Bach Reader*, 453.

seven of which originally were included in the *Clavierbüchlein*. Along with the *Applicatio*, it represents the type of motivational teaching piece that Forkel described. Primarily consisting of two-part textures, the 42-measure *Praeambulum* incorporates broken-chord structures and figuration featuring quick interval expansion and contraction. Nearly completely fingered, these two works would have allowed a student to apply basic techniques learned in previously studied exercises given by Bach regarding the execution and articulation of scales, arpeggios, and various patterns of figuration.

Fingering that may reflect Bach's instruction also survives in one example of indirect transmission. Extant copies of early versions of preludes and fugues from the second book of the Well-Tempered Clavier confirm that at least nine of the individual pieces were originally conceived in a simpler form.²⁹ The *Prelude and Fugue in C major* exists in an early version as a *Prelude and Fughetta*, BWV 870a, copied by one of Bach's pupils, Johann Caspar Vogler (1696 – 1763), whose copy of the *Prelude and Fughetta* is nearly completely fingered.³⁰ In Forkel's annotated list of Bach's serious students who successfully made music their profession, Vogler is named the first pupil. According to Forkel, Bach testified that Vogler "was an exceedingly able player."³¹ Born in 1696, Vogler first studied with Bach in Arnstadt in 1706, and then again as a teenager in Weimar, from 1710 – 1715. From 1721 until his death, he served as the organist of the Weimar court, a significant position once held by Bach.³² Vogler was required to copy pieces of music while under Bach's tutelage, including the organ works of Jacques

²⁹ Marshall, "Johann Sebastian Bach," 108.

³⁰ Soderlund, *Organ Technique*, 126-127.

³¹ Forkel, *Johann Sebastian Bach*, 100.

³² Russell Stinson, "Vogler, Johann Caspar," in *Grove Music Online*, *Oxford Music Online*, <http://www.oxfordmusiconline.com/subscriber/article/grove/music/29609> (accessed September 1, 2013).

Boyvin.³³ This suggests that his accuracy in copying scores had developed sufficiently to please his teacher. Furthermore, even though Vogler was no longer Bach's student when he copied BWV 870a in 1729, he drafted the copy while a guest at Bach's home on paper owned by Bach.³⁴

Given his extensive study with the master during his formative years, some of the fingerings in BWV 870a may reflect Bach's ideas, yet many of Vogler's choices are questionable in terms of efficiency and ease. The fingering in BWV 870a deserves exploration in order to postulate the degree to which these choices reflect Bachian practices. Although the *Prelude and Fugue in C major* of the Well-Tempered Clavier is musically more sophisticated than Vogler's early copy, both versions present similar challenges of realizing four-part and three-part contrapuntal textures. BWV 870a demonstrates how a student of Bach navigated the fingering puzzles presented by these types of textures and figurations.

Written Evidence of Bach's Hand Position and Fingering

Some of the written evidence related to Bach's hand position provides clues as to how he used his fingers. While these written accounts do not describe specific fingering choices, they support many observations and conclusions about his fingering.

³³ Ibid.

³⁴Werner Neumann and Hans-Joachim Schulze, eds., *Fremdschriftliche und gedruckte Dokumente zur Lebensgeschichte Johann Sebastian Bachs, 1685-1750*, vol. 2 of *Bach-Dokumente*, quoted in Ewald Demeyere, *Johann Sebastian Bach's Art of Fugue: Performance Practice Based on German Eighteenth Century Theory* (Leuven: Leuven UP, 2013), 118.

C. P. E. Bach states in his *Essay*:

My deceased father told me that in his youth he used to hear great men who employed their thumbs only when large stretches made it necessary. Because he lived at a time when a gradual but striking change in musical taste was taking place, he was obliged to devise a far more comprehensive fingering and especially to enlarge the role of the thumbs and use them as nature intended; for, among their other good services, they must be employed chiefly in the difficult tonalities. Hereby, they rose from their former uselessness to the rank of principal finger.³⁵

Emanuel Bach's commentary shows that Bach lived during a time of changes in keyboard technique. His use of well-tempered tuning that allowed him to compose in keys with many flats and sharps, together with the contrapuntal textures and sophisticated figurations of his music, required new means of fingering. Allusions to Bach's development of thumb usage also appear in the Obituary of Bach, written by C.P.E. Bach and Johann Agricola, one of Sebastian's students:

All his fingers were equally skillful; all were equally capable of the most perfect accuracy in performance. He had devised for himself so convenient a system of fingering that it was not hard for him to conquer the greatest difficulties with the most flowing facility. Before him, the most famous clavier players in Germany and other lands had used the thumb but little. All the better did he know how to use it.³⁶

Johann Phillip Kirnberger, another successful student of Bach, goes so far as to claim that Bach invented the "rule" of turning the thumb under at the ends of scales.³⁷ Rameau also recommends this technique in the preface of his 1724 publication of harpsichord pieces. Whether or not Bach was the first person to advocate this procedure

³⁵ C. P. E. Bach, *Essay*, 42.

³⁶ Obituary of Bach, quoted in David, Mendel, and Wolff, *The New Bach Reader*, 306.

³⁷ Soderlund, *How Did They Play*, 145.

as a basic technique is unclear. Of greater importance is the fact that Bach played a major role in establishing the use of the thumb as an integral component of keyboard technique.

These quotations from the *Essay* and the *Obituary* support the notion that Bach expected all of the fingers of the hand to participate fully in the execution of figuration. Forkel likewise speaks of Bach's awareness that many keyboardists neglected the smaller fingers of the hand if passages could be played with the "stronger" fingers, and that Bach desired to develop all of the fingers. Forkel states:

to obviate so great a defect, [Bach] wrote for himself particular pieces, in which all the fingers of both hands must necessarily be employed in the most various positions in order to perform them properly and distinctly...He was a perfect master of those passages in which, while some fingers perform a shake, others, on the same hand, have to continue the melody.³⁸

Forkel's description of Bach's playing describes a rounded hand with minimal finger movement:

According to Sebastian Bach's manner of placing the hands on the keys, the five fingers are bent so that their points come into a straight line, and so fit the keys...that no single finger has to be drawn nearer when it is wanted...Bach is said to have played with so easy and small a motion of the fingers that it was hardly perceptible. Only the first joints of the fingers were in motion; the hand retained even in the most difficult passages its rounded form; the fingers rose very little from the keys, hardly more than in a shake, and when one was employed, it remained quietly in its position.³⁹

³⁸ Forkel, *Johann Sebastian Bachs Leben*, quoted in David, Mendel, and Wolff, *The New Bach Reader*, 433.

³⁹ *Ibid.*, 432-33.

In Soderlund's overview of the fingering found in the *Praeambulum*, *Applicatio*, and BWV 870a, she encourages further careful study of these works for the purpose of discovering implied principles of fingering.⁴⁰ The following discussion is the result of such study, describing observed fingering patterns and seeking to deduce Bach's reasons for choosing them. Although the *Applicatio* appears before the *Praeambulum* in the *Clavierbüchlein*, the *Praeambulum* is discussed first because it features numerous, clear manifestations of the salient principles of Bach's fingering in two-part textures. The *Applicatio* exhibits additional fingering patterns that further support these principles within the context of thicker textures.

The various fingering patterns in the three works discussed in this chapter serve to support one or more of the following fundamental premises: first, the avoidance of extended hand positions in order to maintain a naturally rounded hand shape; second, preserving economy of motion and ease of execution through consideration of the figuration that immediately follows a given passage; and third, coordinating changes in hand position with articulation of the metric and figural structure of the musical material. Often, the observed fingering patterns represent a compromise between the first two premises: by using slightly extended hand positions in a given passage, Bach anticipates the need for hand position shifts in figuration that immediately follows. This avoids unnecessary motion and large extensions during the transition to the subsequent passage.

⁴⁰ Soderlund, *Organ Technique*, 124-126.

Praeambulum in G Minor

Fingering patterns found in the *Praeambulum* function to avoid highly stretched hand positions, create economy of motion, and promote ease of articulation.⁴¹ These patterns include the organization of passagework into small groups of tones based on motivic gestures, the free use of the thumb, the avoidance of the black keys with the thumb, the use of non-consecutive fingers in stepwise passages, the variation of fingering in similar figuration, and the repetition of the same finger in stepwise motion.⁴² In addition, the fingering surrounding the few un-fingered passages imply fingering solutions for the realization of ornaments.

By choosing fingering that links small groups of motivic figuration, Bach balances the need to anticipate changes in hand position with the desire to avoid overtly stretched hand positions, while simultaneously facilitating articulation. The opening motif of the *Praeambulum* is a broken G minor triad in 5th-root-3rd ordering, fingered with 1 – 2 – 4 for the RH. This is answered by the same broken harmony in root position in the LH, fingered with 5 – 3 – 2 (Fig. 6). One could use 1 – 3 – 5 for the RH and 5 – 3 – 1 for the LH to maintain a less expanded hand position. However, both cases are followed by an ascending octave leap. By taking into account the location of the pitches immediately following these broken chords, Bach's fingering reduces the distance that the RH fifth finger and LH thumb must travel to make the octave leap by physically

⁴¹ The complete score is shown in Appendix A. All score examples of the *Praeambulum* are taken from Soderlund, *How Did They Play?*, 151. © Copyright 2006 by Hinshaw Music, Inc. Reprinted with permission.

⁴² The term *non-consecutive fingering* refers to fingering for a melodic passage which does not use adjacent fingers when moving from one tone to another.

placing these fingers closer to their destinations. Using the logic of avoiding a change of position in m.2, he could also have chosen 1 – 2 – 3 for the RH in m. 1, but using 3 on the B-flat would require the hand to maintain a slightly more stretched position between fingers 2 and 3. A similar situation occurs in mm. 18-21, in which the broken triads in the LH are fingered with 4 – 2 – 1 instead of 5 – 3 – 1, creating a slightly expanded hand position to account for the downward octave leaps that follow (Fig. 7).

Figure 6. J. S. Bach, *Praeambulum in G Minor*, mm. 1-3.



Figure 7. J. S. Bach, *Praeambulum in G Minor*, mm. 18-21.



The organization of groups of notes into discrete figures informs Bach's choice when there are two plausible fingerings for a passage with a large leap. In mm. 3–7 in the LH, four-note broken root position chords on beats two and three are followed by octave leaps in the following measures (Fig. 8). Bach fingers the arpeggios with 5 – 3 – 2 – 1, and then places 5 on the downbeat, initiating a change of hand position. One could

rationalize playing the downbeat pitch with 2, attempting to play as many tones as possible with the same hand position, and then leaping to the octave on beat 2. Both options require a single change of hand position, but Bach's choice implies that the eighth notes are a separate gesture, forming a different sub-grouping of tones from the three quarter-note octaves. His shift of position aligns with the important musical shifts: a change of harmony, the location of a downbeat, and the location of an articulation. From a purely physical perspective, his fingering capitalizes on the ability of the hand to contract as finger 5 pulls inward to easily produce a slight articulation at the downbeat, whereas the other fingering requires a conscious effort to lift finger 2 to create an articulation. The hand must then make an octave leap from finger 2 to 1, requiring greater attention to accuracy than if finger 5 were already resting on the first pitch of the octave leap. On a touch-sensitive instrument, aligning shift of the hands with strong beats also reinforces the meter.

Figure 8. J. S. Bach, *Praeambulum in G Minor*, mm. 3-7.



Bach's fingering in the RH of the *Praeambulum* implies that the long passages of eighth notes are not to be played with an identical connected touch throughout, but rather should incorporate slight accents. With one exception, it is possible to connect all of the

tones in the three long passages of eighth notes in this piece with a legato touch (mm. 3-10, 20-27, and 33-38) using Bach's fingering without any significant awkwardness (Figures 9-11). To do so, one would be required in several instances to employ crossing of the second and third fingers over the thumb to connect the last eighth note of a measure to the following downbeat (mm. 6-7, 25-26, and 35-36 are examples). The exception occurs in mm. 22-23, in which the last eighth note in the first measure, a B-flat, is played with finger 2, followed by A-flat on the downbeat played with finger 3. This requires a horizontal shifting of the hand position, precluding a true legato touch in this instance.

Figure 9. J. S. Bach, *Praeambulum in G Minor*, mm. 3-10.



Figure 10. J. S. Bach, *Praeambulum in G Minor*, mm. 20-27.



Figure 11. J. S. Bach, *Praeambulum in G Minor*, mm. 33-38.



The *Praeambulum* fingering demonstrates Bach's willingness to use thumb turns freely, allowing ease of execution even if his choices do not conform to an established scale fingering pattern.⁴³ For instance, the turning of the thumb under the second finger occurs in the LH in m. 23, allowing fingers 1 through 5 to play a descending stepwise passage in eighth notes from F to B-natural (Fig. 10). If one were to default to the standard fingering of a C-minor scale by placing the thumb on the G, a shift would be necessary in the following measure. The LH fingering leading into m. 9 can be interpreted as second instance of crossing the thumb under the second finger, as opposed to a lateral hand shift with articulation (Fig. 9). The continuation of D⁷ harmony and across the bar line in mm. 8-10 (Fig. 9) implies that all of the tones comprise a single gesture, and can therefore be played with a connected touch.

Bach consistently avoids placing the thumb on the black keys except in the context of octave stretches, preventing shifts of the hand away from the body towards the back of the keys and the resulting deviation from the natural shape of the hand. The fingering choices for executing larger intervals are therefore determined by the localized pattern of black and white keys. For example, the descending leaps of a sixth in the RH

⁴³ I use the term *thumb turn* to represent a motion in which the thumb moves below other fingers.

in mm. 3, 4, and 7 all use 5 – 2 due to the second tone falling on a black key (Fig. 9). In contrast, the RH descending leaps in mm. 6 and 21 and 36 use 5 – 1, since the second tone falls on a white key but is followed by a black key a step lower (Figures 9, 10, and 11, respectively). Placing 1 on the E-flat in the LH of m. 38 requires a motion of the hand away from the body that must be quickly reversed to execute the trill that follows, which according to the common practice of the time must be fingered with 1 and 2 (Fig. 12). In mm. 5 and 25, the choice between finger 1 and 2 for the descending sixths is determined by the melodic direction that follows. In each case, both the second tone of the sixth and the pitch following it do not involve playing black keys (Fig. 13).

Figure 12. J. S. Bach, *Praeambulum in G Minor*, mm. 38-39.



Figure 13. J. S. Bach, *Praeambulum in G Minor*, m. 5-6 and m. 25-26.



Bach also avoids shifts of the hand towards the back of the keys when the first pitch is sustained. Thus, in the m. 41, placing 2 rather than 1 on the sixth in the LH better

anticipates the hand position of the final measure (Fig. 18, p. 36). In mm. 12-16, the fingering consistently places 2 on the LH B-flat in the moving line above the D pedal point, requiring the thumb to remain tucked under the second finger while executing the trill in m. 13 (Fig. 14). If the pedal point were not present, this fingering would not be used. This fingering demonstrates that Bach is willing to make an unusual fingering choice for a trill in a context that preserves a less extended hand position.

Figure 14. J. S. Bach, *Praeambulum in G Minor*, mm. 12-16.



Bach uses non-consecutive fingering to secure economy of motion. The LH E-natural on beat 3 of m. 22 is played with 5, followed by 3 – 2 – 1 (Fig. 15). Another possibility is 5 – 4 – 3 – 1, but turning the thumb under finger 3 requires more movement than turning the thumb under finger 2. Bach's fingering contracts the hand, placing the center finger at the location within the scalar figure of the greatest shift in hand position (similar to mm. 9 – 10 discussed above). Using 4 on the E to create consecutive fingering is also reasonable, but Bach's use of 5 eliminates stretching from the previous B-flat, thus outlining a descending diminished fifth within a single, rounded hand position.

Figure 15. J. S. Bach, *Praeambulum in G Minor*, mm. 22-24.



Another instance of non-consecutive fingering occurs in mm. 9-10 in the LH. Bach places finger 5 on the B-flat in m. 10 to allow the octave leap to be executed with 5 – 1, a practice he advocates in mm. 6 – 8. Instead of using finger 4 on the preceding C, he uses finger 3 to allow the center of the hand to act as a balance, evenly distributing at the bar line the distance traversed from the D on beat two in m. 9 to the B-flat on beat 2 of m. 10. Non-consecutive fingering in stepwise motion can also arise due to Bach's avoidance of the thumb in preparation for a leap to a black key. This is demonstrated in the RH in m. 4, where the F on beat three is played with 5 so that the hand can comfortably play the following A-flat with 2 (Fig. 9, p. 30).

Bach uses three different versions of fingering for broken D^7 chords in root position within the *Praeambulum*, demonstrating that he adjusts his fingering choices for identical chord shapes based on the figuration that follows in order to minimize motion. The fingering variations also reveal that he does not shy away from stretches between fingers 4 and 5 when executing broken root-position seventh chords. He fingers the broken D^7 chord in m. 8 with 1 – 5 – 4 – 3 – 1, creating small stretches between fingers 3, 4, and 5 (Fig. 16). One might be tempted to reduce the amount of stretching by using 1 – 5 – 3 – 2 – 1 or 1 – 5 – 4 – 2 – 1. However, this arpeggio repeats in mm. 9-10, and the

passing tone E that links each repetition causes multiple shifts between fingers 2 and 3 on the F-sharp if one were to use these alternative fingerings. Bach's fingering utilizes finger 3 as a stationary point, maintaining one basic hand position that is centered on the F-sharp. Small stretches are permitted in exchange for avoiding several small changes in hand position.

Figure 16. J. S. Bach, *Praeambulum in G Minor*, mm. 8-10.



In m. 17, Bach does not have to contend with passing tones or shifts of position in the following measure, and uses the more comfortable 1 – 2 – 4 – 5 for the isolated D⁷ arpeggio (Fig. 17). He could have used this fingering in m.10, where the passing tone E is likewise absent, but likely retained the previous fingering to maintain the same hand position established in mm. 8-9. He switches to 1 – 2 – 3 – 5 for the D⁷ chord in m. 18, placing finger 3 on the A in anticipation of the shift in position needed in m. 19 to place finger 2 on the B-flat. Mm. 17-18 are transposed up a fourth in mm. 19-20, showing an analogous fingering context for G⁷ broken chords. These variations in fingering for seventh chords show that Bach uses 1 – 2 – 3 – 5 only in the context of an impending shift in position.

Figure 17. J. S. Bach, *Praeambulum in G Minor*, mm. 17-20.



The fingering in passages with multiple voices indicates that stepwise motion occurring in longer note values may be played with the same finger, creating space between the pitches in addition to reducing stretching. From mm. 12-13, the soprano voice is played with finger 5, shifting to finger 4 when arriving on a black key. Finger 4 is then used again on the A in m. 15 (Fig. 14, p. 33). A similar fingering occurs in the soprano at m. 39, from the C to the B-flat (Fig. 18). Here, the articulation helps to highlight the hemiola that occurs across mm. 39-40. Nowhere, however, does a single finger leap during stepwise motion in the faster moving eighth-note passages. Bach tends to reserve this fingering technique for passages involving multiple voices in one hand.⁴⁴

Figure 18. J. S. Bach, *Praeambulum in G Minor*, mm. 39-42.



⁴⁴ Examples occur in Vogler's copy of the Prelude in C major, discussed later in this chapter.

Appropriate fingerings for the occasional un-fingered pitches can be derived from the surrounding fingering. For example, the octaves in the LH in m. 4 should be played with 5 and 1, as clearly indicated in m. 10 (Fig. 19). Some of the trills are left unfingered. In m. 11, the *schneller* on beat 1 can be played with 3 – 4 – 3, which then allows the trill with prefix on beat 2 to be played with fingers 3, 4, and 5. This fingering is corroborated by the trill with prefix in the last measure of the *Applicatio*, which requires the use of fingers 3, 4, and 5 due to the sustained pitch in the alto voice.⁴⁵ Bach's use of finger 3 for the mordents in mm. 30 and 32 clearly indicates use of the same finger for the principal note of the subsequent trills (Fig. 20). Furthermore, use of fingers 4 and 3 for the trills prevents the hand from having to change position in mm. 31 and 33.

Figure 19. J. S. Bach, *Praeambulum in G Minor*, mm. 10-11.



Figure 20. J. S. Bach, *Praeambulum in G Minor*, mm. 30-33.



⁴⁵ See Figure 21 on p. 43.

The trill in m. 40 is not fingered, but the notation of 3 on the previous A prepares for the use of fingers 4 and 3 (Fig. 18, p. 36). Bach remains consistent in avoiding the thumb on black keys except when performing octave stretches. In m. 40, he uses finger 2 on the F-sharp in the alto voice below the trill, choosing to turn the thumb under the second finger to play the G. Playing the F-sharp with the thumb eliminates a stretch between fingers 2 and 3, but it is not congruent with Bach's fingering practices. Playing both versions confirms that a smoother shift to the new hand position in the penultimate measure is easier to negotiate if the hand is not shifted forward onto a black key in m. 40.

The fingering patterns observed in the *Praeambulum* favor rounded hand position, economy of motion, and ease of articulation. These concerns likewise inform Bach's fingering choices in the *Applicatio*. Additional fingering concepts observed in the *Applicatio* include paired scale fingerings, distinct articulations in certain slower moving voices, the preclusion of legato touch for resolutions of dissonance, and the expectation that all five fingers of the hand will have the dexterity to execute ornaments.

Applicatio

In the *Applicatio*, Bach employs several early fingering techniques discussed in Chapter 1.⁴⁶ These early practices appear immediately. The RH plays an ascending C-major scale with fingers 3 and 4, executing all stepwise motion by crossing the third finger over the fourth finger. The ascending C-major scale in m. 3 likewise uses the early practice of crossing the LH finger 2 over finger 1 several times in succession.

⁴⁶ The complete score is shown in Figure 21 at the end of this section.

Although this scale begins with the third finger, the remainder of the scale uses fingers 2 and 1. Earlier German fingering sources tended to place finger 2 on the beat, followed by finger 1.⁴⁷ Ornamentation causes Bach to reverse this order in the *Applicatio*. It was standard practice to play the main note of ornaments with finger 3 in the RH, and for fingers 1 and 2 to play LH ornaments.⁴⁸ Both of these scale fingerings result in finger 3 in the RH and finger 1 in the LH falling on the main note of the mordents. The RH descending scale in m. 5 avoids crossing fingers over the thumb, again due to the ornamentation. Execution of the trill on beat 3 requires the repetition of the D. Bach favors changing fingers on this pitch by selecting fingers 4 and 3 for the trill, also introducing a shift in position that prepares the hand to execute the remaining eighth notes in the measure.

The inclusion at the onset of a pedagogical work intended for his son of these fingerings for no less fundamental a concept than a C-major scale demonstrates that Bach was not only aware of common fingering practices that had developed among his predecessors, but that he recognized continuing positive value in their study. Emanuel Bach and others testify that his father developed newer ideas of fingering, such as using the thumb for more than just octave stretches. Indeed, much of J. S. Bach's keyboard music is evidence itself that newer fingering practices were necessary, especially for music written in keys with many flats and sharps. Nevertheless, he clearly felt that older fingering practices still had practical application in pieces with passages such as those found in the *Applicatio*.

⁴⁷ See Chapter 1, p. 15.

⁴⁸ Ibid.

Playing C-major scales with early fingerings can feel strange to keyboardists trying it for the first time. This is because today's standard scale technique feature groups of three and four fingers are played consecutively, linked by turning the thumb under fingers three and four, as opposed to fingers working in pairs without any thumb turning. The concept of crossing the third finger over the fourth finger is absent from modern piano pedagogy instruction, as is the concept of executing a one-octave scale with four small shifts in position. Using standard techniques will not necessarily produce a poor performance. However, in the opening measures of the *Applicatio*, the early fingering demonstrates superior consistency over standard fingering options in terms of coordinating finger numbers with the metrical organization of the ascending RH scale, the execution of mordents, and the periodic pattern of finger numbers. Today's commonly used fingering of 1 – 2 – 3 – 1 – 2 – 3 – 4 uses three different fingers for eighth notes occurring on the beat, whereas the early fingering creates small hand position shifts every two tones, coinciding with inflections of the strong and weak eighth notes. Thus, the fingering can be coordinated with variations in the application of arm weight between strong and weak portions of the beat on touch-sensitive instruments.⁴⁹

The consistency of Bach's fingering choices is much easier to remember, especially given the lack of accidentals. His fingering allows regular use of fingers 3 and 4 to realize the mordents. Using today's standard fingering requires finger 2 to cross back and forth over the thumb to perform the first mordent, and results in different finger pairs executing each mordent. The paired fingering naturally leads to the placement of

⁴⁹ Joel Speerstra, *Bach and the Pedal Clavichord: An Organist's Guide* (Rochester: University of Rochester Press, 2004), 103-04.

finger 5 on the G in m. 2, easily preparing the hand for the descending octave leap. A modern approach, in an attempt to avoid the use of 3 – 4 – 5 for the ornament on the F, might generate a trill fingering of 3 – 2 – 3 – 2 – 1 – 3 – 5 in order to still arrive on finger 5 on the G. This solution also requires an extra thumb turn onto the E on beat 2.

Bach's fingering for some of the slower moving tones requires distinct articulations. Bach uses the early technique of playing consecutive harmonic thirds with fingers 2 and 4 in the LH. The use of fingers 5 – 4 to execute a leap of a fourth in m. 6 indicates a very distinct detachment. Soderlund suggests that this also indicates the early release of the half note B sustained by the same hand, in order to prevent awkward stretching.⁵⁰ Soderlund cites very early German fingering examples in the *Fundamentum* of Hans Buchner (discussed in Chapter 1) that demonstrate precedence in the practice of longer notes losing some of their value due to the motion of other voices.⁵¹ If one follows the fingering given, even stretching will not allow the hand to sustain these longer note values.

The fingering at the cadence in m. 4 implies that very quick motions of the fifth finger to an adjacent white key on eighteenth-century instruments can produce a touch that adequately shows the relationship between the appoggiaturas and their resolutions. The C on beat 3, which is a prepared appoggiatura, cannot be connected to its resolution using Bach's fingering with a legato touch.⁵² This indicates that Bach's idea of a touch that functions to connect non-harmonic tones to their resolutions need not be limited to a

⁵⁰ Soderlund, *How Did They Play*, 150.

⁵¹ *Ibid.*, 23.

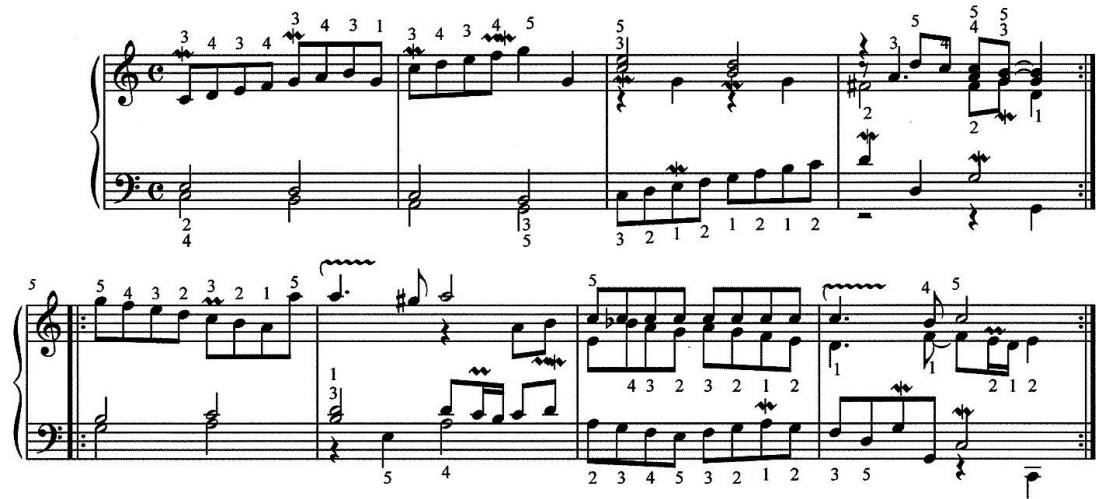
⁵² *Ibid.*, 150.

purely legato touch. A pianist not exposed to this idea who attempts to creating a true legato connection between the C and the B in m. 4 (as well as between the F-sharp and the G in the alto voice) would have to use fingers 5 – 3 – 2 for the eighth notes on beat 3, and fingers 4 – 1 for the subsequent eighth notes. In addition to crossing finger 2 over 1 to realize the mordent in the alto voice, one would need to substitute finger 1 very quickly after completion of the mordent in order to play the D.

A similar fingering context occurs at the cadence in m. 8, where the final C of the RH trill is a prepared appoggiatura over a G in the bass that cannot be connected to the following B because both pitches are played with finger 4. Furthermore, in m. 8, Bach secures an articulation in the alto voice by requiring the RH thumb to leap from the D to the F on the second half of beat 2. Emphasis of the metrically weak F is justified because it becomes a suspension on beat 3.

One of the sophisticated traits of this pedagogical piece is the requirement of one hand to execute a trill while sustaining another pitch. This clearly indicates that a student to whom Bach assigned this work would have already studied simpler preparatory exercises before embarking upon the *Applicatio*. The trill in m. 8 contains a prefix and a termination, requiring the use of fingers 3, 4, and 5 to execute the ornament while the thumb is anchored at a distance of a seventh below, demonstrating that he involved the participation of all the fingers in a contrapuntal fabric. Even as Bach used existing fingering practices, he also expected the smallest fingers to execute ornaments when necessary.

Figure 21. J. S. Bach, *Applicatio*⁵³



Prelude and Fughetta in C Major

The principles of avoiding highly stretched hand positions, creating economy of motion, and promoting ease of articulation observed in the fingering of the *Praeambulum* and *Applicatio* appear to some degree in Vogler's copy of the *Prelude and Fughetta in C major*, BWV 870a. However, various fingering choices result in awkward hand positions or less efficient movements incongruent with the implied goals of Bach's fingering outlined above, including a tendency to avoid the execution of intervals larger than a fifth with any combination other than fingers 1 and 5, the absence of finger substitution in passages where it can easily be employed, and inconsistent application of fingering to similar figuration in contexts where changes are unnecessary.⁵⁴ In some contexts, Vogler's fingerings reflect Bach's principles, but in other cases, they inhibit the hand

⁵³ Soderlund, *How Did They Play?*, 150. © Copyright 2006 by Hinshaw Music, Inc. Reprinted with permission.

⁵⁴ The term *finger substitution* refers to the replacement of one finger with another finger on a depressed tone without allowing the key to lift.

from expanding in places where it is comfortable to do so. Thus, Vogler's fingering transmission is not entirely reflective of Bachian performance practice, and a performer who wishes to learn from it must evaluate the merit of each fingering context individually.

Prelude

Much like its counterpart in Book Two of *The Well-Tempered Clavier*, the early version of the *Prelude in C major* features four voices moving in free contrapuntal texture.⁵⁵ A composite rhythm of constant sixteenth notes is maintained by the frequent exchange of moving lines, sustained tones, and various rhythmic and melodic motifs among all of the voices. The right hand consistently executes two voices, usually with one voice moving in faster note values while the other voice is sustained. The left hand alternates between one and two voices, often executing multiple leaps in the bass voice while sustaining tones in an inner voice. Fingering principles observed in the *Prelude* include frequent changes in hand position that align fingers 1 and 5 with the metric placement of the figuration, the repeated use of a finger on stepwise tones when a tone of longer duration is involved, the use of different fingers on repeated notes in certain contexts, and the avoidance of large stretches. Occasionally, Vogler uses fingering patterns that do not follow these principles, but that produce more efficient results.

⁵⁵ The complete score of the *Prelude and Fughetta* is shown in Appendix B. All score examples are taken from Soderlund, *How Did They Play*, 153-54. © Copyright 2006 by Hinshaw Music, Inc. Reprinted with permission.

In his attempt to align metric placement with fingers 1 and 5, Vogler seems to be following a principle as though it were an inflexible rule, which sometimes unnecessarily prevents the hand from opening up to facilitate shaping of the line. Before the contrapuntal texture is established in m. 3, the opening two measures feature a single line in the right hand unfolding above a tonic pedal point (Figure 22). This line slowly descends two and a half octaves via a graceful mixture of conjunct motion and outlines of ascending and descending sixths, sevenths, and thirds. The predominance of white keys affords many fingering possibilities for this passage. Vogler completely avoids finger crossings, instead using fingers 1 and 5 at the boundaries of large intervals outlined by groups of sixteenth notes, creating a separate hand position for each of these units. In beat 2 of m. 1, the second broken sixth can be fingered with 1 – 4. Likewise, the crunching of the fingers that results during beat 2 of m. 2 can be prevented by playing the downbeat of m. 2 with finger 4, followed by a crossing of finger 3 over the thumb on beat 2. This alternative also aligns the finger crossing with the implied eight-note voice by executing the descending D – C – B-natural line with 3 – 2 – 1. In contrast, Vogler’s placement of finger 5 on the B-flat in m. 1 is a positive choice, minimizing the stretch of a seventh and preparing for the descending line that follows.

Figure 22. J. S. Bach, *Prelude in C Major*, mm. 1-2.



Once the contrapuntal texture is established, Vogler frequently uses the same finger on stepwise tones of slower duration while the same hand is also executing a second voice. Instances occur in the soprano voice from beat 3 of m. 7 to beat 4 of m. 8, in the alto voice on beat 4 of m. 14, in the tenor voice from beat 2 of m. 4 through beat 3 of m. 5, and in the bass voice on beat 4 of m. 13 through beat 1 of m. 15 (Figures 23-24). The fingering context in each of these passages is analogous to the passage in the *Praeambulum in G minor* in mm. 12-15 in the sense that a single hand has to contend with two voices, one of which is quite rhythmically active (Fig. 14, p. 33). Bach does not use substitution for the slow, descending stepwise soprano line, opting to repeat finger 5. Vogler implements this procedure to good effect in the previous examples; however, he again demonstrates inflexibility when the context changes. The suspension in the soprano voice on the downbeat of m. 10 is resolved by using the same finger (Figure 25, p. 48). In contrast to the *Praeambulum* passage, in which one would have to execute substitutions very quickly due to the more active second voice, the slower note values of both voices in the RH of m. 10 easily allow a finger substitution of 4 – 5 on the G in the soprano voice. Alternatively, using 5 – 4 – 3 – 5 for the first four soprano tones avoids substitution while still connecting the suspension to its resolution. While Bach's example suggests that a quick shift using the same finger can indicate a satisfactory relationship between the two tones, Vogler's use of this technique when substitution is the more efficient choice reflects adherence to a rule without considering its context.

Figure 23. J. S. Bach, *Prelude in C Major*, mm. 3-8.



Figure 24. J. S. Bach, *Prelude in C Major*, mm. 12-15.



Figure 25. J. S. Bach, *Prelude in C Major*, m. 10.



Use of the same finger is avoided for two or more sixteenth notes in a row. However, Vogler often uses the same finger on the last sixteenth note of a beat and a note of longer duration that follows. Examples occur in the alto voice leading into beat 4 of m. 4 and beat 2 of m. 5, in the tenor voice leading into beat 2 of m. 12, and in the alto voice leading into beat 2 of m. 14 (Figures 23-24). This fingering pattern is often used in conjunction with the Prelude's ubiquitous *suspirans* figure.⁵⁶ Soderlund cites these instances as evidence of Vogler's sensitivity to metrical organization.⁵⁷ On the contrary, the severance of the sixteenth notes from the sustained tone that follows disrupts the figural organization of the *suspirans* gesture. Examples occur in the alto voice on beats 1-2 in m. 6 and beats 3-4 in m. 8 (Fig. 23).

Some of Vogler's fingering causes quick horizontal shifts in hand position to prepare the hand to execute patterns of figurations that follow, while simultaneously creating articulations on downbeats. In the preceding examples, the *suspirans* figure occurred in inner voices, resulting in thumb repetitions. When these situations occur in outer voices, he does not repeat fingers. The resulting shift in position prepares the hand

⁵⁶ The *suspirans* figure consists of three sixteenth notes that begin on the second sixteenth note division of the beat.

⁵⁷ Soderlund, *Organ Technique*, 126.

to execute patterns of figuration that follow. Finger 5 follows finger 3 in the RH descending line at the bar line of m. 7, and finger 5 follows finger 4 at the bar line of m. 12 (Figures 23-24, p. 47). In the soprano line at beat 2 of m. 11, finger 3 is used after finger 4, moving from a black key to a white key (Fig. 26). Similarly, finger 3 is used after finger 2 on beat 4 of m. 15. In the bass line, finger 3 follows finger 4 on beat 2 of m. 16 (Fig. 27).

Figure 26. J. S. Bach, *Prelude in C Major*, m. 11-12.



Figure 27. J. S. Bach, *Prelude in C Major*, mm. 15-17.



In other instances, Vogler's fingering creates unnecessarily compressed hand positions. On beat 1 of m. 12 and beat 2 of m. 15 in the RH, hand position shifts cause finger 5 to rest an interval of a second away from finger 2 (Figures 26-27). In the former instance, placing finger 4 on the C-sharp is less awkward, and it anticipates the eventual resolution to D. In the latter instance, there is no good reason to change fingers from 3 to

2 on the D in the alto voice, especially considering the descent of the alto voice that follows.

As observed in the *Praeambulum in G minor*, the fingering of the *Prelude* avoids large stretches. Small stretches are occasionally introduced to avoid larger extensions of the hand in immediately following figuration. The placement of the LH thumb on the last sixteenth note on beat 2 of m. 8 demonstrates how contraction of the hand can facilitate impending shifts of position, in this case making the leap to G-sharp with finger 3 manageable (Fig. 28). On beat 4 of m. 15, the broken thirds in the RH use fingers 2 – 4 – 5 instead of 2 – 3 – 5 (Fig. 27). This slightly reduces the distance finger 2 must travel to reach the following C. Harmonic progressions in root position result in leaps of fourths and fifths in the LH bass line, as seen in mm. 4-5 and m. 7 (Fig. 28). Vogler's fingering of 5 – 4 can be executed deftly when the player makes a distinct articulation and quickly contracts the hand. Using 5 – 3 or 5 – 2 produces less hand movement, but 5 – 4 guarantees a large punctuation when played without stretching. For ascending scales in sixteenth notes on white keys, the LH follows the early fingering technique of alternating fingers 2 and 1.

Figure 28. J. S. Bach, *Prelude in C Major*, mm. 3-8.



As in Bach's fingered examples, mordents in Vogler's copy are executed with finger 3 on the principal note. The schnellers usually occur as part of *suspirans* figures, and are fingered with 3 – 2. He does not give a fingering for the schneller on beat 1 of m. 7, implying 3 – 2 based on the finger number on the preceding pitch (Fig. 28). However, this ornament is best fingered with 3 – 1 in order to prevent the thumb from playing the following F-sharp.

Measures 13 and 14 contain two instances of an awkward threefold use of finger 5 in the soprano voice within a short amount of time (Fig. 29). By using the fifth finger twice in a row moving from the last sixteenth note on beat 2 of m. 13 to the half note on beat 3, Vogler avoids a stretched hand position in the RH by playing beats 2 and 3 only

with finger 5, but crossing finger 4 over finger 5 to play the E is physically the more comfortable option. Similarly, the soprano voice in the final beat of m. 14 can be executed using a 4 over 5 crossing.

Figure 29. J. S. Bach, *Prelude in C Major*, mm. 13-14.



The following two fingerings require the hands to stretch, and thus represent exceptions to Vogler's other fingering patterns in the Prelude. The exceptions produce physically appealing results, further suggesting that Vogler's default choices elsewhere in similar contexts are not always the best option. At the pickup to m. 13, he uses fingers 2 and 1 to execute a sixteenth note followed by a quarter note (Fig. 30). However, the previous pitch A is also played by the thumb. Using 2 on the G in this instance prevents bouncing the thumb twice in quick succession. Indeed, he only employs the same finger more than twice in a row for note values of at least an eighth note in duration. The alto voice in m. 9 leading into m. 10 also uses fingers 2 and 1. In both examples, the fingering does not cause an unreasonable stretch for a long length of time. They allow the hand to use a finger combination other than 1 and 5 to play intervals larger than a fifth, preserving voice leading and avoiding multiple, quick shifts of the thumb.

Figure 30. J. S. Bach, *Prelude in C Major*, mm. 9-10 and mm. 12-13.



Fughetta

The Fughetta's subject is comprised of two segments.⁵⁸ The first consists of a lower-neighbor figure in 16th notes followed by an upper-neighbor figure in quarter notes. The second segment consists of a sixteenth-note figure constructed from neighbor-tone figures and changing tones that is sequenced a step higher. Through sequential treatment, this material is used to derive the countersubject, which is used extensively in episodic passages. Fingering patterns observed in the Fughetta include favoring finger 3 in RH and finger 2 in LH on metrically strong notes within sixteenth-note figuration, early fingering techniques for scalar passages, inconsistencies of fingerings for the same figuration, fingerings that facilitate the expression of *quantitas intrinseca*, in which notes

⁵⁸ The score of the Fughetta appears at the end of this section as Figures 9-10.

in strong metric positions are held longer than notes in weaker metric positions,⁵⁹ and the avoidance of finger substitution during chains of suspensions.

The ubiquitous use of the changing tone figuration on different scale degrees results in stepwise patterns that are constantly interspersed with thirds. Since these patterns occur primarily on the natural keys, many fingering options are possible, especially when the hand is not also juggling a second voice. Vogler places finger 2 on the first and third sixteenth notes whenever possible in the LH, resulting in several chains of 2 – 1. In the RH, he favors starting segments of passagework with finger 3. Although Vogler does utilize finger 4, in general he avoids engaging all of the fingers of the hand to their fullest potential in realizing this type of passagework, heavily relying on fingers 1, 2, and 3. This contrasts with previously cited evidence of Bach's expectation that all fingers be engaged, and calls into question the degree to which Vogler's transmission reflects Bach's influence. For instance, starting the LH passagework in m. 6 with finger 3 avoids many small shifts in hand position, allowing fingers 4 and 5 to actively and easily execute tones within a five-finger position (Fig. 31).

Figure 31. J. S. Bach, *Fughetta in C Major*, mm. 6-7.



⁵⁹ Speerstra, *Bach and the Pedal Clavichord*, 98-100.

Early fingering techniques observed in the *Applicatio* are applied to LH passages in the Fughetta that are purely stepwise. Finger 2 crosses over the thumb multiple times in m. 25, and finger 3 crosses over finger 4 in the last beat of m. 31 (Figures 32-33). A lateral hand shift creates an articulation at beat 3 of m. 24 when finger 2 follows finger 4 (Fig. 32).

Figure 32. J. S. Bach, *Fughetta in C Major*, mm. 24-25.



Figure 33. J. S. Bach, *Fughetta in C Major*, mm. 31-32.



Vogler's fingering contains several instances of inconsistencies for no apparent reason, implying that his choices are not always well-thought out. Changing the fingering for similar passagework is only necessary in certain contexts, for instance, when the pattern of black and white keys changes, when an additional voice is introduced, or when preparing for passagework to follow. Otherwise, using the same

fingering in identical contexts is more efficient, reinforcing the mastery of whatever solution has been deemed best. Occasionally, finger 3 is used in a context where Vogler could have used finger 2. Beat 4 of m. 2 and beat 4 of m. 6 demonstrate two fingerings for the same passagework (Fig. 34). Likewise, in the sequential LH passage in mm. 28 – 31, finger 2 is used consistently on the downbeats, with the exception of finger 3 on the downbeat of m. 30 (Fig. 35). While both fingerings are usable options, using both versions produces no advantage in this context. The use of 3 in the RH on beat 4 of m. 8 produces a stretch that serves no function (Fig. 36). This choice is inconsistent with Vogler’s implied fingering on beat 4 of the preceding measure, in which finger 2 can be used without affecting the comfort of playing the octave that follows.

Figure 34. J. S. Bach, *Fughetta in C Major*, mm. 1-6.



Figure 35. J. S. Bach, *Fughetta in C Major*, mm. 28-31.



Figure 36. J. S. Bach, *Fughetta in C Major*, mm. 7-9.



In m. 4, finger 3 in the RH is used on the second sixteenth note of beat 3, but in the analogous spot in m. 14, finger 2 is used, shifting the fingering for the rest of the measure (Fig. 37). Vogler may have made this change to allow finger 3 to execute the principal note of the mordent on beat 4 in m. 14. However, the voice leading in beat 4 of m. 4 suggests that the trill on the D is a copying error. If Vogler had interpreted this ornament as a mordent, he could have used the same fingering for both passages. Vogler is consistent in his use of finger 3 for RH mordents. In m. 27, the use of finger 5 instead

of 4 on the last sixteenth note contracts the hand to prepare for the execution of the mordent with finger 3 in m. 28 (Fig. 38). On beats 1 and 2 in m. 10, Vogler chooses to use 5 – 5 – 3 instead of keeping the hand in the same position by using 5 – 4 – 2 (Fig. 39). He introduces a tiny shift in the repeated use of finger 5, thereby minimizing the size of the much larger shift to the E on beat 3.

Figure 37. J. S. Bach, *Fughetta in C Major*, m. 4 and m. 14.



Figure 38. J. S. Bach, *Fughetta in C Major*, mm. 27-28.



Figure 39. J. S. Bach, *Fughetta in C Major*, mm. 10-11.



Some fingering indications in the Fughetta are overtly awkward. In mm. 12-13, the contrapuntal writing requires the middle voice to migrate between the hands (Fig. 40). In m. 12, Vogler's use of finger 5 on the final eighth note in the soprano voice while the other fingers play the middle voice causes the fingers to awkwardly bunch together. This is avoided by simply playing this note with finger 4, especially because it reduces the forward motion of the hand needed to play a black key with finger 5. Vogler's fingering causes breaks in the sixteenth-note line in the middle of beat 1 in m. 13. By quickly releasing the bass D, the LH can take the second sixteenth note E. This is a more effective solution that preserves the continuity of the middle voice and gives the RH more time to prepare finger 3 for the entrance of the subject.

Figure 40. J. S. Bach, *Fughetta in C Major*, mm. 12-13.



Measures 7 and 8 contain fingering that aids the performer in realizing the concept of *quantitas intrinseca* through means of duration (Fig. 36). This passage features a canon at the fifth in the RH using the first portion of the subject. The use of fingers 3 and 1 on the downbeat of m. 8 requires the thumb to leap up a fourth from the previous measure. The leap could easily have been accomplished by using finger 2 on the downbeat, since finger 2 is closer to the destination pitch. Using finger 1 creates a

definite space between these pitches, greater than the space between the two eighth notes on beat 4 of the previous measure.

By avoiding finger substitution, the RH fingering in mm. 31-33 does not allow for legato connections of suspensions to resolutions (Fig. 41). Fingerings at the cadences of the *Applicatio* have demonstrated that Bach's idea of a touch that shows the relationship of suspensions to their resolutions not need be limited to legato. Nevertheless, the passage in question contains slower moving note values similar to the RH passage in m. 10 of the prelude. There is easily time for finger substitution in mm. 31-33, but the only time substitution is indicated is in m. 25, where it is absolutely necessary to prepare the LH to take the middle voice in the following measure (Fig. 42). This suggests that Vogler was either unaware of the practicality of substitution as a viable option in certain contexts, or that he blindly applied Bach's selective choice to repeat finger 5 to a passage that might have lent itself to a more efficient technique.

Figure 41. J. S. Bach, *Fughetta in C Major*, mm. 31-34.



Figure 42. J. S. Bach, *Fughetta in C Major*, mm. 25-26.



Taking into account the sometimes awkward fingering choices and the unjustified inconsistencies in fingering choices observed the *Prelude and Fughetta*, it is easy to imagine Vogler ensconced in a narrow, rule-bound view of fingering, one that is still in a premature stage of evaluating all practical options. Vogler's transmission contains some good fingering advice, but the amount of questionable fingering suggests that Bach's efficient system was not always mastered or understood by prominent musicians of the time.

The works of Bach discussed in this chapter incorporate fingerings that support the maintenance of a naturally rounded hand shape through avoidance of large stretches, that promote efficient hand motions through consideration of figuration immediately following a given passage, and that facilitate the realization of the metric and figural structure of the musical material. In the following chapter, I apply these concepts to propose fingering solutions for pieces by Bach involving textures and figurations similar to those in the fingered sources. In the spirit of Bach's use of preparatory exercises in his teaching, I also provide exercises as templates for teachers wishing prepare a student for

the fingering and articulation concepts encountered in pieces at the level of the *Clavierbüchlein*.

CHAPTER III

APPLICATION OF JOHANN SEBASTIAN BACH'S FINGERING PRINCIPLES

The fingering patterns and the principles governing them described in Chapter 2 are applied in this chapter to two works by Johann Sebastian Bach appropriate for intermediate level piano students. The *Prelude in C minor* BWV 934 is the second piece of the *Six Little Preludes*, and the *Prelude in D major* BWV 925 appears as No. 27 in the *Clavierbüchlein vor Wilhelm Friedemann Bach*.⁶⁰ The patterns of figuration in BWV 934 and 925 and the textures in which they occur are similar to those found in the *Praeambulum in G minor*, *Applicatio*, and *Prelude and Fughetta in C major* BWV 870a. The challenge of selecting effective fingering for these two pieces is thus directly aided by fingering of analogous contexts given by Bach, as well as selected fingerings by Vogler that are congruent with Bach's practice.

Discussion of my proposed fingering solutions for BWV 934 and BWV 925 occurs in comparison with fingering solutions for identical passages in Alfred Publishing Company's Masterworks Edition of Bach's *Eighteen Short Preludes for the Keyboard*, edited and fingered by Willard A. Palmer.⁶¹ Instances in which the fingering differs demonstrates how an otherwise well-researched modern edition distributed by a

⁶⁰ The *Prelude in D major* often appears in modern anthologies as No. 4 of the *Twelve Little Preludes*, which were first collected and arranged in ascending key order by Johann Friedrich Griepenkerl in the nineteenth century. Seven of the twelve preludes appear in the *Clavierbüchlein*, while the remaining five survive in a copy from the estate of Johann Peter Kellner.

⁶¹ Johann Sebastian Bach, *Eighteen Short Preludes for the Keyboard*, ed. Willard A. Palmer (Van Nuys, CA: Alfred Publishing Company, Inc., 1998). Reprinted with permission.

publishing company widely respected among piano teachers of intermediate students contains fingering suggestions that are tailored to facilitate phrasing and legato touch incongruent with the implications of articulation and touch found in Bach's music. Furthermore, my fingerings avoid stretched or angled hand positions to a greater degree than some of Palmer's fingerings. Following a discussion of Bach's keyboard touch as described by Forkel and his student Friedrich Conrad Griepenkerl (1782-1849), the chapter concludes with supplementary exercises designed to allow students to become familiar with and practice Bach's fingering principles in preparation for study of his intermediate-level works.

Excerpts from all scores appear as figures within the text. In figures consisting of comparative fingering, the excerpt presenting my fingering appears first, followed by the excerpt presenting Palmer's fingering. The complete scores of the *Prelude in C minor* and *Prelude in D major* with my fingering appear in Appendix C. I omit fingering in places where choices are obvious, such as the second tone of an octave leap played with fingers 5 or 1, stepwise passages in which using the adjacent finger is the only reasonable option, and broken-chord figures in which the fingering for a given pitch remains the same when the same pitch recurs within the figure. The complete scores of the Alfred Masterwork Edition edited and fingered by Willard A. Palmer appear in Appendix D.⁶² The Alfred edition uses lighter print to display Palmer's suggestions for fingering,

⁶² Willard A. Palmer (1917-1996) made valuable contributions to piano pedagogy through the publication of hundreds of keyboard pieces, detailed study of primary sources in the preparation of student editions, the inclusion of scholarly discussions of Baroque ornamentation in the innovative Alfred Masterworks series, and as co-author of *Alfred's Basic Piano Library*. Dr. Palmer served on the music faculty of the University of Houston for 18 years, creating the first successful collegiate accordion courses.

phrasing, ornamentation realization, and possible dynamic shading, allowing teachers and pupils to distinguish his ideas from the material given in the sources.

Palmer prefaces his edition with historically informed explanations of ornaments, and takes care to note any differences in notation among the sources used in the preparation of his edition. After briefly discussing Forkel's and Emanuel Bach's descriptions of J. S. Bach's keyboard touch, Palmer states that "the slurs in lighter print...should serve more to define musical ideas than to prescribe any certain degree of legato within each phrase. It is clear that Bach expected the notes to be played cleanly...at all times."⁶³ Despite Palmer's distinction between the function of his editorial slurs and the idea of a slur representing a legato touch, some of his fingering suggestions imply a legato performance.⁶⁴

Prelude in C Minor

My proposed solutions in the *Prelude in C minor* favor a natural hand position whenever possible, preserve economy of motion, and facilitate the realization of the metrical and figural organization of the music. Specific fingering techniques discussed include the avoidance of the thumb on black keys, the frequent use of thumb in passages with leaps, the use of non-consecutive fingering and lateral shifts of hand position, the alteration of fingering for similar figuration to prepare for subsequent figuration, and the

⁶³ J. S. Bach, *Eighteen Short Preludes*, 5.

⁶⁴ Not all of Palmer's fingering indications are incongruous with eighteenth-century style. Some fingering in the Alfred edition is similar to the solutions I have provided. Palmer's fingering is only mentioned when it differs from the particular instance of fingering that I am discussing.

fingering of ornaments. Additionally, this prelude contains a passage that warrants exceptions to the practice of eschewing the thumb in passagework using black keys.

I avoid the thumb on black keys to minimize shifting of the hand to and from the back of the keys. I will use the word “up” to refer to a hand position where the thumb is over black keys, and “down” to refer to a position where the thumb is over white keys. Starting at the pickup to m. 8, using finger 2 on the B-flats reflects Bach’s clear preference for using a stretch between fingers 5 and 2 rather than moving the hand up for one measure (Fig. 43). In contrast, Palmer uses the thumb to play these B-flats in order to allow stepwise fingering for the eighth notes occurring on the beat in m. 8. Likewise, in m. 13 I execute the broken E-flat first inversion chord shape with 1 – 3 – 5, allowing fingers 2 and 5 to play the black keys in mm. 14-15, as opposed to Palmer’s 1 – 2 – 4 in m. 13, which prepares for the use of the thumb on black keys in the following measure (Fig. 44). In m. 23, Palmer favors aligning the outlines of triads in the RH with changes in hand position (Fig. 45). However, this requires the thumb to play the D-flat, causing quick motions of the hand away from the body and back. My fingering prevents this motion by placing the thumb on the F and crossing over to the D-flat with finger 2.

Figure 43. J. S. Bach, *Prelude in C Minor*, mm. 7-8, with Comparative Fingerings.

The image displays two musical staves side-by-side, labeled 'Duvall' and 'Palmer', representing measures 7 and 8 of J.S. Bach's Prelude in C Minor. Both staves are in C minor (three flats) and 4/4 time. The Duvall staff shows a treble clef with a pickup note (B-flat) and a melody of eighth notes: B-flat, A, G, F, E, D, C, B-flat. The bass clef has a steady eighth-note accompaniment: C, D, E, F, G, A, B-flat, C. Fingerings for Duvall are indicated by numbers 1-5 above or below notes. The Palmer staff shows a similar melody but with a different fingering approach, using the thumb for the initial B-flat and different fingerings for the subsequent notes. The bass clef accompaniment is also present. The comparison highlights differences in fingering strategy for the black keys and the overall hand position.

Figure 44. *Prelude in C Minor*, mm. 13-15, with Comparative Fingerings.

The image displays two musical staves for measures 13-15 of the Prelude in C Minor. The top staff, labeled 'Duvall', shows a treble clef with a key signature of two flats (B-flat and E-flat). The melody consists of eighth notes. Fingerings are indicated by numbers 1-5 below the notes: measure 13 (3, 5, 1, 3), measure 14 (2, 5, 2, 5, 3, 5), and measure 15 (2, 5, 1, 3). The bottom staff, labeled 'Palmer', shows the same melody with a different fingering: measure 13 (1, 2, 4), measure 14 (1, 4, 1, 2), and measure 15 (1, 3). The bass clef part is also shown with fingerings: measure 13 (1, 2), measure 14 (1, 3, 4), and measure 15 (2, 3, 4). The Palmer staff includes a *p* (piano) dynamic marking and a slur over the first two measures.

Figure 45. *Prelude in C Minor*, mm. 22-23, with Comparative Fingerings.

The image displays two musical staves for measures 22-23 of the Prelude in C Minor. The left staff, labeled 'Duvall', shows a treble clef with a key signature of two flats. The melody consists of eighth notes. Fingerings are indicated by numbers 1-5 below the notes: measure 22 (3, 2, 3, 5, 4, 1, 2, 5, 3, 1) and measure 23 (1, 3, 2). The right staff, labeled 'Palmer', shows the same melody with a different fingering: measure 22 (3, 4, 2, 3, 5, 4, 1, 2, 5, 3, 1) and measure 23 (1, 3, 2). The bass clef part is also shown with fingerings: measure 22 (1, 3, 2) and measure 23 (1, 3, 2). The Palmer staff includes a slur over the first two measures.

Some stretching is unavoidable in the disjunct LH passagework in mm. 32-33 (Fig. 46). Using 5 – 2 – 1 – 3 – 2 – 5 | 3 requires a quick lateral shift at the bar line, but this avoids the uncomfortable twisting of the hand to place the thumb on the high D-flat and the large stretch between fingers 1 and 3 caused by Palmer's 5 – 2 – 1 – 2 – 1 – 3 | (4 implied). His fingering does not suggest the possibility of lateral shifts, and instead seems crafted to allow a legato connection to the E in m. 33. In m. 10, Palmer also places the LH thumb on the B-flat, which is easily playable by finger 2 (Fig. 47).

Figure 46. *Prelude in C Minor*, mm. 32-34, with Comparative Fingerings.

The image displays two versions of a musical score for measures 32-34 of the *Prelude in C Minor*. The top version, labeled 'Duvall', shows a treble and bass staff. The treble staff has a triplet of eighth notes (B-flat, A, G) in measure 32, followed by a sixteenth-note figure in measure 33, and a triplet of eighth notes (F-sharp, E, D) in measure 34. The bass staff has a triplet of eighth notes (C, B-flat, A) in measure 32, followed by a sixteenth-note figure in measure 33, and a triplet of eighth notes (G, F, E) in measure 34. The bottom version, labeled 'Palmer', shows the same measures. The treble staff has a triplet of eighth notes (B-flat, A, G) in measure 32, followed by a sixteenth-note figure in measure 33, and a triplet of eighth notes (F-sharp, E, D) in measure 34. The bass staff has a triplet of eighth notes (C, B-flat, A) in measure 32, followed by a sixteenth-note figure in measure 33, and a triplet of eighth notes (G, F, E) in measure 34. The Palmer version includes a 'mf' dynamic marking in measure 33 and a 'dimin.' marking in measure 34.

Figure 47. *Prelude in C Minor*, m.10, with Comparative Fingerings.

The image displays two versions of a musical score for measure 10 of the *Prelude in C Minor*. The left version, labeled 'Duvall', shows a treble and bass staff. The treble staff has a triplet of eighth notes (B-flat, A, G) and a triplet of eighth notes (F-sharp, E, D). The bass staff has a triplet of eighth notes (C, B-flat, A) and a triplet of eighth notes (G, F, E). The right version, labeled 'Palmer', shows the same measure. The treble staff has a triplet of eighth notes (B-flat, A, G) and a triplet of eighth notes (F-sharp, E, D). The bass staff has a triplet of eighth notes (C, B-flat, A) and a triplet of eighth notes (G, F, E). The Palmer version includes a 'dimin.' marking in measure 10.

The frequent use of the thumb in passages with many leaps reduces large stretches. In mm. 30-31, finger 2 of the RH crosses over the thumb, followed by turning the thumb under finger 2 (Fig. 48). This capitalizes on the underlying outline of sixths by using 5 – 1, 5 – 2, and 4 – 1 on the tones A – C, G – B-flat, and F-sharp – A, respectively. Palmer instead places the thumb on a black key in m. 31. Although this outlines the figuration with fingers 1 and 5, his choice in this context requires an uncomfortable

extension of the hand between the A in m. 30 and the B-flat in m. 31.⁶⁵ The RH fingering in mm. 35 and 37 utilizes appropriate contexts for allowing the hand to expand slightly (Fig. 49). An alternative fingering of 1 – 2 – 4 – 1 – 5 – 1 permits the execution of the interval of a fifth with 5 – 1, but 1 – 2 – 4 – 2 – 5 – 1 covers all of the pitches in each measure without multiple shifts of the thumb.

Figure 48. *Prelude in C Minor*, mm. 30-31, with Comparative Fingerings.



Figure 49. *Prelude in C Minor*, mm. 35-37.



Stretching and superfluous motion in passagework immediately following stepwise passages is reduced by non-consecutive fingering. In m. 3, following finger 4 with finger 2 on beat 2 prepares the RH to play the ascending thirds (Fig. 50). In m. 11, the use of 1 – 4 in the RH on beat 2 anticipates the descending contour of the melodic

⁶⁵ A similar context occurs in the RH in mm. 37-38 at the bar line, as shown in Figure 55 on p.73.

line, as does the use of 1 – 3 – 4 on beats 1 and 2 of m. 12 (Fig. 51). Palmer uses 1 – 3 in m. 11, which requires slightly more stretch on the final beat. He uses consecutive fingers in m. 12, causing the third finger to traverse a greater distance when crossing over the thumb. By bringing the fourth finger closer to the center of the hand, my fingering requires less motion to execute the subsequent finger crossings without squeezing the hand together by using finger 5.

Figure 50. *Prelude in C Minor*, m. 3.



Figure 51. *Prelude in C Minor*, mm. 11-12, with Comparative Fingerings.



The overlapping broken chord in the final measure of each repeated section is prepared by non-consecutive fingers on the preceding eighth notes. Palmer uses 1 – 3 in m. 19 because he chooses to play the first inversion E-flat chord in m. 20 with 4 – 2 – 1, which uses a slightly more extended position than my 5 – 2 – 1 (Fig. 52). In m. 40, I use 5 – 3 – 2 instead of Palmer's 5 – 2 – 1, avoiding the thumb on the E-flat (Fig. 53).

Between mm. 14 and 15, an instance of non-consecutive fingering in the LH quarter notes occurs at the bar line (Fig. 44, p. 67). It is appropriate to play quarter notes in keyboard music in this style with an articulated touch, so a thumb turn on the G is unnecessary. The fingering 2 – 3 – 4 aligns with the repeated descending three-note scalar motif, and facilitates a shortening of the weak third beat of each measure.

Figure 52. *Prelude in C Minor*, mm. 19-20, with Comparative Fingerings.

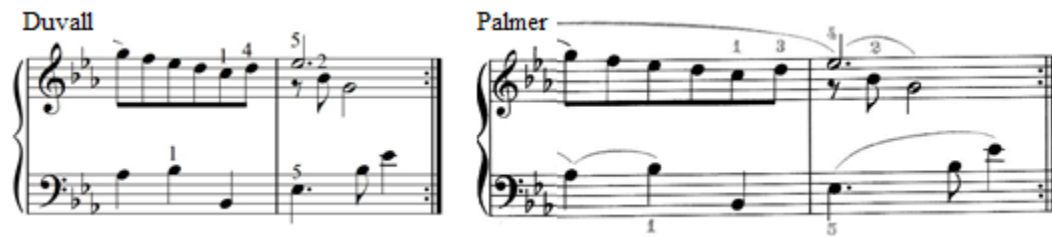
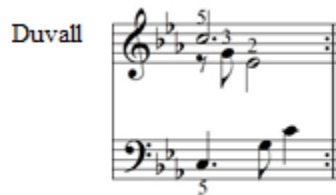


Figure 53. *Prelude in C Minor*, m. 40.



Fingering is used to support lateral shifts of hand position in extended passagework that does not require legato phrasing. In mm. 33-34, the figuration in the RH surrounding the bar line (Fig. 46, p. 68) is reminiscent of the *Praeambulum in G minor* at mm. 21-22, where Bach uses a lateral shift of hand position by following finger 2 with finger 3 in a descending line (Fig. 10 in Chapter 2). I recommend the same

fingering in this passage. Palmer instead uses 2 – 1, unnecessarily placing the thumb on a black key in a passage that can be performed with lateral shifts.

Because the RH figuration in mm. 5-6 is sequenced in mm. 7-8, it is valid to treat each two-measure unit as a separate phrase (Fig. 54). Such an interpretation does not require the tones between mm. 6 and 7 to be connected, and the use of 1 – 4 allows the hand to shift to a new position covering all of the tones in m. 7.

Figure 54. *Prelude in C Minor*, mm. 5-8, with Comparative Fingerings.

The figure displays two musical staves for measures 5 through 8 of the 'Prelude in C Minor'. The top staff, labeled 'Duvall', shows a right-hand melody with fingerings: m. 5 (4, 2, 2, 4, 1), m. 6 (3, 4, 5, 1), m. 7 (4, 2, 2, 2), and m. 8 (4, 5, 5, 2). The bottom staff, labeled 'Palmer', shows both right-hand and left-hand parts. The right-hand part has fingerings: m. 5 (4, 2, 4, 1), m. 6 (3, 1, b), m. 7 (4, 2, 1, 1), and m. 8 (3). The left-hand part has fingerings: m. 5 (1), m. 6 (3, 1), m. 7 (1), and m. 8 (1). The Palmer version includes slurs and staccato markings in the left hand.

On beats 1 of mm. 36 and 38 in the LH, shifts are produced by my fingering. Palmer does not finger these notes, although he does suggest articulations via slurs and staccato indications (Fig. 55). As demonstrated in m. 26 (Fig. 56), the treatment of octave leaps beginning on downbeats in the LH as single gestures executed with fingers 1 and 5 is also analogous to passagework in the *Praeambulum in G minor*. This usually results in shifts in hand position prior to the octaves, which also facilitates articulation of the downbeat. Palmer offers an alternative fingering in mm. 25-26, delaying the shift in

position until beat 2 of m. 26 (Fig. 56). By connecting the downbeat of m. 25 to preceding quarter notes, he privileges the internal cadence in E-flat major over the implications of the continuing phrase structure.

Figure 55. *Prelude in C Minor*, mm. 36-39, with Comparative Fingerings.

Figure 56. *Prelude in C Minor*, mm. 25-26, with Comparative Fingerings.

Using different fingering for similar figuration anticipates changes in hand position. I use 4 – 2 – 1 to execute the RH passage in m. 9, anticipating the placement of finger 3 on the B-flat in m. 10, which must be used to account for the leap to E-flat at the end of the measure (Fig. 57). Palmer, approaching this passage from the thumb on a

black key, uses 3 – 2 – 1 in both measures, creating a larger leap at m. 10. Another example occurs in the RH in mm. 14-15 (Fig. 44, p. 67). Changing the fingering of the C and E-flat found in beat 3 of m. 14 when these tones reappear in beat 2 of m. 15 better prepares the hand for the ascending leaps in m. 16.

Figure 57. *Prelude in C Minor*, mm. 9-10, with Comparative Fingerings.



The ornaments in the RH follow the practice of placing finger 3 on the principal note. Using 4 – 3 on the trills in mm. 2 and 4 positions the hand to easily execute the remainder of the measure (Fig 58). In m. 32, Palmer concluded that using 3 – 2 – 3 for the mordent would create an awkward fingering situation in the following measure. To alleviate a stretch in m. 33 among fingers 3, 4, and 5, he suggests executing the ornament with 3 – 1 – 2 (Fig. 46, p. 68). However, the stretches are not troublesome if one uses the time afforded by the B-flat half note to prepare for them. The leap to the G on beat 3 of m. 33 is then managed comfortably by using finger 2 to play the C. Changing fingers on the principal note of the mordent creates more complication than playing the stretches of minor thirds with 3, 4, and 5.

Figure 58. *Prelude in C Minor*, mm. 2-4, with Comparative Fingerings.

The image displays two musical staves for the first three measures of the Prelude in C Minor. The top staff, labeled 'Duvall', shows a treble clef with notes G4, A4, Bb4, C5, Bb4, A4, G4 and a bass clef with notes F4, E4, D4, C4. Fingerings are indicated: Treble (4, 3, 5, 4, 3, 5) and Bass (1, 2, 3, 4, 1). The bottom staff, labeled 'Palmer', shows the same notes but with different fingerings: Treble (3, 1, 2, 1, 4, 2, 4, 1, 3, 1, 2) and Bass (1). The notation includes slurs and ties to indicate phrasing and duration.

The particular arrangement of black keys in a passage can warrant the use of the thumb on black keys, as seen in the LH passage in mm. 18-20 (Fig. 59). There is no passage in Bach's fingered pieces that has a similar pattern of black and white keys, but C. P. E. Bach states in his *Essay* that "A slight discomfort being preferable to a greater one, it is better to commit the little finger or the thumb to a black key than to omit them and cause an excessive, hazardous stretch."⁶⁶ Although this statement is referring specifically to block four-toned chords, it is reasonable that Emanuel Bach would also avoid hazardous stretches in other contexts, if possible. In order to avoid placing the thumb on the black keys on beat 2 of 18, one would have to stretch fingers 3 and 2 across the interval of a fourth between the B-flat and E-flat, or else squeeze the hand together by placing the thumb on the downbeat. He later explains that thumbs are permissible when playing chords with black keys in the outer parts because "the entire hand moves the rear

⁶⁶ C. P. E. Bach, *Essay*, 68.

of the keyboard, thereby removing objection to their use,” confirming that Bach’s issue with the thumb on black keys is due to angled contortions of the hand caused by moving the thumb up and down between black and white keys.⁶⁷ Indeed, in referring to pupils who have received poor fingering instruction he states that “their hands must be continually twisted and distorted in order to allow the thumb to take the black keys without rhyme or reason, even in tonalities with many accidentals.”⁶⁸ Notwithstanding that the passage in question concerns arpeggiated passages instead of block chords, his statements justify the use of the thumb on the E-flat in m. 18 because the LH remains at the rear of the keyboard through the end of the phrase in order to execute the subsequent black keys in mm. 19-20. In contrast, Palmer’s use of the LH thumb in m. 17 can be avoided by using 5 – 4 – 2.

Figure 59. *Prelude in C Minor*, mm. 17-20 with Comparative Fingerings.

The figure displays two musical staves for the *Prelude in C Minor*, measures 17-20. The top staff is labeled 'Duvall' and the bottom staff is labeled 'Palmer'. Both staves are in C minor (three flats) and 4/4 time. The Duvall version shows fingerings: m. 17 (RH: 4, 5; LH: 5, 4, 2, 3, 4, 5), m. 18 (RH: 1, 4; LH: 4, 2, 1, 2, 3, 4), m. 19 (RH: 1, 4; LH: 1), m. 20 (RH: 5, 2; LH: 5). The Palmer version shows fingerings: m. 17 (RH: 1, 4; LH: 5, 1), m. 18 (RH: 5, 1, 3; LH: 2, 1), m. 19 (RH: 1, 3; LH: 1), m. 20 (RH: 5, 2; LH: 5). The Palmer version includes a forte (f) dynamic marking in m. 18.

⁶⁷ Ibid., 68.

⁶⁸ Ibid., 69.

Prelude in D Major

In proposing fingering for the *Prelude in D major* I have tried to follow the same principles that guided my fingering choices in the *Prelude in C minor*. The three-part texture of the *Prelude in D major* results in some different manifestations of these principles. Fingering situations to be discussed include the articulation of sustained tones moving by leap and by step, the execution of running sixteenth-note passagework, repeated use of a finger in multi-voiced textures, and non-consecutive fingering.

Articulations are produced between tones of longer duration in various instances. The harmonic thirds in the LH on beats 1 and 2 in m. 1 are played using the early practice of 2–4 for both thirds, as opposed to Palmer’s modern approach, which uses 1–3 followed by 2–4 (Fig. 60). In m. 4, the harmonic thirds in the upper voices are similarly fingered to produce articulations. In mm. 1 and 3, fingers 5 and 4 are used to execute an interval of a fourth in the bass line. This is similar to the bass line of the *Applicatio*, where in m. 6 a distinct articulation rather than stretching is the most appropriate means of execution (Fig. 21 in Chapter 2). Palmer leaves no fingerings here, but his phrase markings indicate that a distinct articulation is not desired. Likewise, the repetition of finger 5 on the descending leap in the soprano voice leading into beat 3 of m. 4 creates an articulation. I avoid the thumb on the C-sharp in the alto voice by using finger 2. Palmer instead places the thumb on the C-sharp, and plays the D – F-sharp dyad on beat 3 with 3–2, implying legato performance. In m. 6, the sequential repetition of the three-note pattern in the bass line starting with the second eighth note is articulated by the use of 5 – 5 in beat 1 and 4 – 5 in beat 3 (Fig. 61).

Figure 60. J. S. Bach, *Prelude in D Major*, mm. 1-4, with Comparative Fingerings.

The image displays two versions of the first four measures of J.S. Bach's *Prelude in D Major*. The top version, labeled 'Duvall', shows a treble and bass staff with various fingerings indicated by numbers 1-5. The bottom version, labeled 'Palmer', also shows the same measures but with different fingerings and includes the marking 'P espressivo' in the bass staff. The Palmer version includes a box with the number '3' in the first measure of the treble staff. Both versions show a complex interplay of eighth and sixteenth notes in both hands.

Figure 61. *Prelude in D Major*, beat four of m. 5 - m. 6.

The image shows measures 5 and 6 of J.S. Bach's *Prelude in D Major*, specifically focusing on the fourth beat of measure 5 and measure 6. The notation is for the treble and bass staves, with fingerings indicated by numbers 1-5. The Duvall version shows a specific fingering for the fourth beat of measure 5 and measure 6, including a '2-5' fingering in the treble staff of measure 6.

The top voice in mm. 16-17 moves in slower note values while the inner voices have greater rhythmic activity (Fig. 62), analogous to m. 12-15 of the *Praeambulum in G minor* (Fig. 14 in Chapter 2). This also occurs in the tenor voice in m. 15 (Fig. 62). In

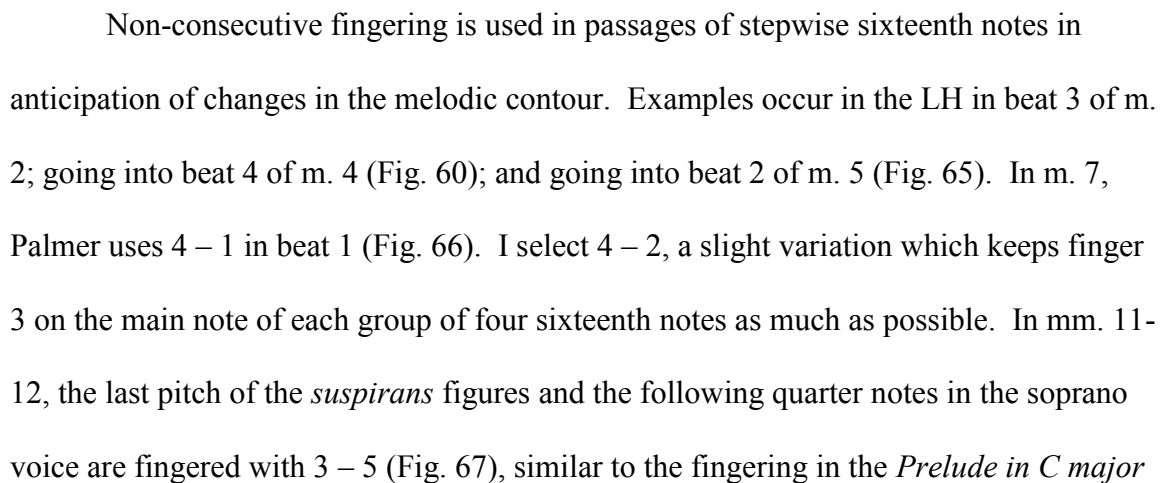
these passages, I follow Bach's practice of the using the same finger on adjacent stepwise tones where practical.

Figure 62. *Prelude in D Major*, mm. 15-17.



Repeated use of the same finger sometimes arises out of necessity. The use of 5 – 5 – 5 in the bass voice in beats 3 and 4 of m. 14 results from stretches between the bass and tenor voices (Fig. 63). I avoid placement of the thumb on the F-sharp on beat 4, using finger 2 to allow the tones of the tonic six-four chord to easily connect to the tones of the dominant seventh that follow. Palmer instead advocates playing both the F-sharp and the following E with the thumb, placing finger 4 on the A on beat 4. This creates unnecessary motion via a thumb shift and makes it difficult to show the relationship of tones in the cadential six-four chord. In m. 17, the LH thumb is used to play the stepwise eighth notes because of the pedal point in the bass (Fig. 62). The addition of a third voice in the RH requires the repeated use of finger 5 in the outer voice. Likewise, the inner voices in the RH of mm. 10-11 are not suspensions, and are executed by quick motions of the thumb and finger 2 (Fig. 64). In contrast, finger substitution in the passage of

Figure 63. *Prelude in D Major*, m. 14, with Comparative Fingerings.



in mm. 4-5 (Fig. 23 in Chapter 2). This not only prepares the hand for the descending line in the alto voice, but aligns hand position shifts with the figural structure of this passage by slightly articulating the suspensions.

Figure 65. *Prelude in D Major*, m. 5.



Figure 66. *Prelude in D Major*, m. 7, with Comparative Fingerings.

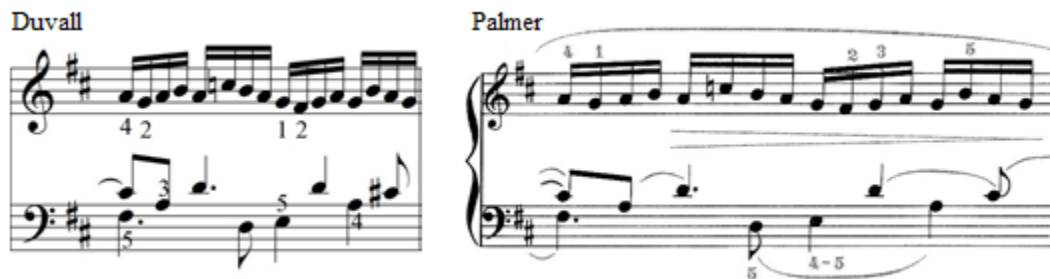


Figure 67. *Prelude in D Major*, m. 11-12.



My fingerings for long passages of sixteenth notes are similar to Palmer's choices but include a few variations. I create a less extended hand position by using finger 3 on beat 2 in mm. 1 and 3 instead of Palmer's use of finger 2 (Fig. 60). In m. 13, I avoid placement of the thumb on the F-sharp in the RH on beat 1, unlike Palmer (Fig. 68). I also cross finger 3 over finger 4 to play the C-sharp in the LH on beat 3. The early fingering in this context fits the passage comfortably, facilitating a change in hand position without the use of a thumb turn required by Palmer's version.

Figure 68. *Prelude in D Major*, m. 13, with Comparative Fingerings.

Palmer fingers the RH trill in m. 14 with 4 – 3 – 5 – 4 in order to allow finger 3 to play the following E, and he turns the thumb under finger 2 as it sustains the C-sharp (Fig. 63, p. 80). Using only fingers 4 and 3 for the trill is simpler and easier to control, given the anchoring of finger 2 on the D. My fingering allows fingers 4 and 2 to play the E and C-sharp via a quick shift of the hand.

While certain fingerings common by today's standard do not necessarily prevent the realization of the figural and metric structure of Bach's music, they do not always provide the most efficient solutions. Rather, they sometimes produce hand positions that are contrary to the hand positions produced by Bach-inspired fingering. Moreover, one

attempting to discern phrasing based on some of Palmer's fingerings will not reach the same conclusions as one using fingerings based on the principles of J. S. Bach.

Supplemental Fingering Exercises

Bach's Keyboard Touch

In studying Bach's fingering principles, it is important to keep in mind that eighteenth-century keyboardists cultivated many subtleties of touch. Bach's concept of connecting tones was not limited to a legato touch. C. P. E. Bach references a wide spectrum of touch, indicating that the middle-ground was considered normative:

There are many who play stickily, as if they had glue between their fingers. Their touch is lethargic, they hold notes too long. Others, in an attempt to correct this, leave the keys too soon, as if they burned. Both are wrong. Midway between these extremes is best. Here again I speak in general, for every kind of touch has its use.⁶⁹

In his biography of J. S. Bach, Forkel likewise speaks of gradations of note lengths. He references the above quote, stating that "the touch is, as C P. E. Bach says, neither too long nor too short, but just what it ought to be," but laments that the specific physical means by which one produces this touch are not described in the Essay.⁷⁰ Forkel takes it upon himself to explain this process, the salient elements of which are summarized in Chapter 2. In the course of discussing the advantages of Bach's hand position, Forkel describes a particular technique for executing individual tones:

⁶⁹ C. P. E. Bach, *Essay*, 149.

⁷⁰ Forkel, *Johann Sebastian Bachs Leben*, quoted in David, Mendel, and Wolff, *The New Bach Reader*, 431.

The drawing back of the tips of the fingers and the rapid communication...of the force of one finger to that following it produces the highest degree of clearness in the expression of single tones, so that every passage performed in this manner sounds brilliant, rolling, and round...By the gliding of the tip of the finger upon the key with an equable pressure, sufficient time is given to the string to vibrate...and we are thus enabled to play in a singing style and with proper connection...⁷¹

The technique of drawing back the fingers is also described by Johann Joachim Quantz, a colleague of Emanuel Bach who heard Sebastian Bach perform on a visit to court of Frederick the Great in 1747:

In...running passages, however, you must not raise the fingers immediately after striking the key, but rather draw the tips of the fingers back towards yourself to the foremost part of the key, until they glide away from it. Running passages are produced most distinctly in this manner. I appeal here to the example of one of the greatest of all players on the keyboard, who practiced and taught in this way.⁷²

Descriptions of keyboard touch by Rameau, Francois Couperin, and other French writers share characteristics with accounts of Bach's playing, namely a relatively still hand position and motion originating from the base of the finger. However, no writers except Forkel and Quantz mention the finger gliding off of the key, i.e., drawing back the tip of the finger.⁷³

One of Forkel's students, Friedrich Conrad Griepenkerl, published an edition of Bach's *Chromatic Fantasy and Fugue* in 1819 based on his memory of Forkel's

⁷¹ Ibid., 432.

⁷² Johann Joachim Quantz, *On Playing the Flute*, trans. Edward R. Reilly (New York: Schirmer, 1966), 260.

⁷³ Soderlund, *Organ Technique*, 131.

performance of this work.⁷⁴ Griepenkerl prefaces this edition with a description of Bach's keyboard touch that is essentially an elaboration of Forkel's descriptions in the biography, providing specific descriptions of the physical positions of the fingers, hand, and arm. If Griepenkerl's commentary is indeed a faithful representation of technique learned from Forkel, then his descriptions may represent Bach's authentic keyboard technique as transmitted to Forkel by Bach's sons.

Griepenkerl establishes the premise that gripping is the most natural mechanism of the hand. Based on this premise, he recommends that a finger depressing a key should serve as a support for the weight of the arm just to the degree that the finger will easily spring back towards the palm of the hand when consciously drawn in. At the moment when a key is released by this gripping movement of the finger, the weight of the arm must be immediately transferred to apply an appropriate amount of pressure to the next finger depressed. In order to execute this procedure, Griepenkerl recommends curving of the fingers into a "fairly straight line" with slight allowances for the thumb and fifth finger, only using motion from the base of the finger to transfer arm weight, and keeping the wrist at a height equal to that of the upper knuckles rather than the middle knuckles. This creates a higher wrist position that one might expect, for Griepenkerl states that "The correct position is recognized by the elongated and almost upright holding of the

⁷⁴ Miklos Spanyi, "Johann Sebastian Bach's Clavichord Technique Described by Griepenkerl," *Clavichord International* 4, no. 2 (November 2000): 47-52.

little finger and the angled position of the thumb on the keys.”⁷⁵ Like Emanuel Bach, Griepenkerl references the existence of subtle variations in Bach’s touch, claiming:

He who now wishes to accomplish what has just been described with every finger of each hand...in all the various possible changes of strengths and weaknesses, quicker and slower, of pushing and slurring...he has the touch of J. S. Bach, as Forkel had it, and many have learnt from him.⁷⁶

Fingering Exercises

Griepenkerl concludes his preface with a few basic fingering exercises designed to allow keyboardists to practice the Bach touch. Whether or not these exercises accurately reflect the type of exercises Bach himself assigned to his students, they do not present any conflict with his fingering principles, and they are useful for both beginning and advanced keyboardists who wish to experiment based on Griepenkerl’s commentary. Griepenkerl’s exercises are very short, basic patterns that allow a student to focus solely on developing the fundamental physical motions needed to play from one tone to the next.

Just as Griepenkerl’s examples were created in the spirit of Bach’s pedagogical practice of assigning students short exercises designed to develop proper technique, I have devised a few exercises intended to prepare intermediate students for the fingering patterns and techniques discussed in this and the preceding chapter. These exercises are tailored to address specific fingering challenges and are thus longer than Griepenkerl’s.

⁷⁵ Friederich Conrad Griepenkerl, “Preface to J. S. Bach’s *Chromatic Fantasy and Fugue* (1819),” trans. Quentin Faulkner, quoted in Speerstra, *Bach and the Pedal Clavichord*, 166-171.

⁷⁶ *Ibid.*, 168.

Most of them are based on motives found in the works discussed earlier, thereby forming a direct link between the study of an exercise and its associated manifestations in the repertoire. They are also intended to function as templates that can be altered to fit the context of a particular figuration or key found in other pieces. Many of them can be extended by means of sequence or transposition to other keys, and ornamentation can be added when appropriate, as demonstrated in Exercises 6 and 7. Exercises 2 and 7 are alternate versions of Exercises 1 and 6, respectively, introducing changes in fingering to account for the inclusion of black keys in the figuration. Teachers may choose to introduce these exercises in small segments or in a simplified form. For example, Exercise 4 prepares for Exercise 5 by blocking the chord before playing it as an arpeggio and by including rests to allow the hand to adjust to new positions. After introducing Exercise 4, a teacher may introduce Exercise 5 by isolating the first five beats, adding more of the exercise once the basic gesture of the lateral shift is mastered. Teachers can also use these exercises as encouragement to create new exercises based on pieces which present patterns of figuration not addressed here. In accordance with J. S. Bach's ornament table found in the *Clavierbüchlein vor Wilhelm Friedemann Bach*, trills in these exercises will begin on the beat with the upper auxiliary pitch.

Figure 69. Preparatory Exercise 1: Non-consecutive Fingering for Anticipating Extended Figuration; White Keys.



Figure 70. Preparatory Exercise 2: Non-consecutive Fingering to Anticipate Leaps; Avoidance of the Thumb on Black Keys.

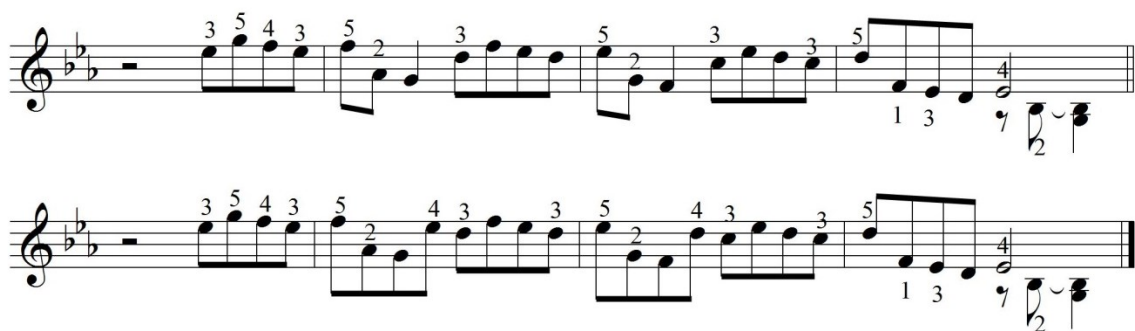


Figure 71. Preparatory Exercise 3: Non-consecutive Fingering with Lateral Shifts on Downbeats.

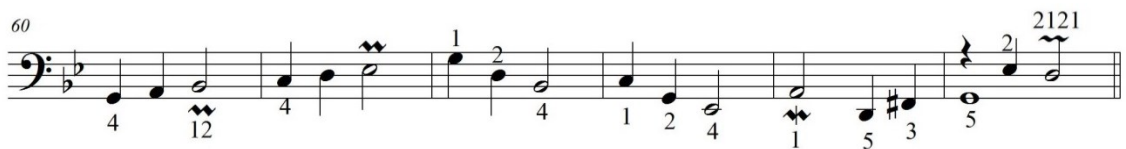


Figure 72. Preparatory Exercise 4: Lateral Shifts with Articulation.

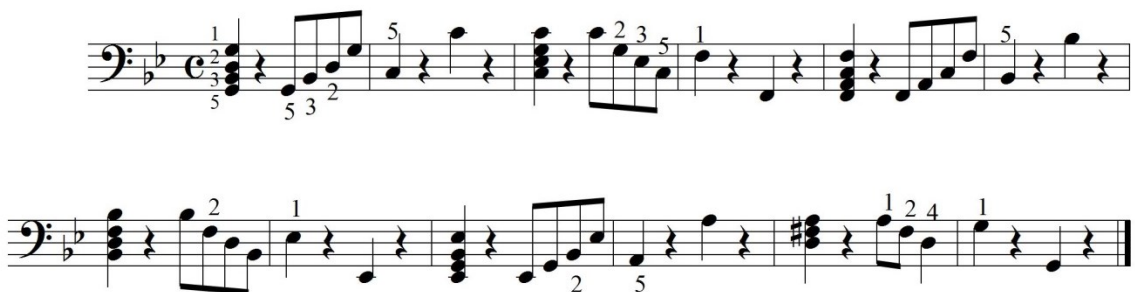


Figure 73. Preparatory Exercise 5: Lateral Shifts with Articulation, Version #2.

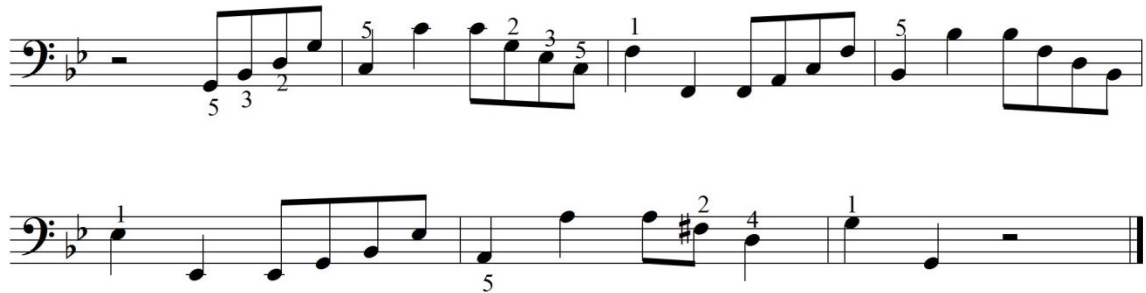


Figure 74. Preparatory Exercise 6: Repeated Fingers on Sustained Tones in Multi-voiced Textures: White Keys.



Figure 75. Preparatory Exercise 7: Repeated Fingers on Sustained Tones in Multi-Voiced textures: Black and White Keys.



Figure 76. Preparatory Exercise 8: Consecutive Fingering at Leaps to Produce Distinct Articulations.



Figure 77. Preparatory Exercise 9: Crossing Finger 2 Over 1 with Pedal Point/Lateral Shifts at Downbeats.



Figure 78. Preparatory Exercise 10: Variation in Fingering for Broken Dominant Seventh Chords Based on Surrounding Figuration.



CHAPTER IV
PRINCIPLES OF FINGERING IN THE *ESSAY* AND *PROBESTÜCKE* OF
CARL PHILIPP EMANUEL BACH

Carl Philipp Emanuel Bach dedicates the first chapter of his *Essay on the True Art of Playing Keyboard Instruments* to keyboard fingering. He begins the chapter by articulating his philosophy of the importance of fingering. He highlights the ease with which poor choices of fingering can arise, pointing out that the design of the keyboard, unlike other instruments, allows any key to be played by any finger. As a result, a wide variety of fingering options is available, but many of these choices result in “prodigious difficulty and awkwardness.”⁷⁷ Bach claims there is only one good system of fingering. He states:

...the correct employment of the fingers is inseparably related to the whole art of performance. More is lost through poor fingering than can be replaced by all conceivable artistry and good taste. Facility itself hinges on it...in spite of the endless variety of fingerings, a few good principles are sufficient to solve all problems; through diligent practice, execution becomes so mechanical that, eventually...full attention may be directed to the expression of more important matters.⁷⁸

Therefore, practicing with good fingering is one of the primary means by which keyboardists gain technical security, freeing them to explore the expressive potential of the music. Bach’s system is flexible, based on principles that can be tailored to fit

⁷⁷ C. P. E. Bach, *Essay*, 41.

⁷⁸ *Ibid.*, 41 and 44.

individual contexts. He explains that every figure has its own fingering solution, which may vary when placed in different musical contexts. His introductory commentary reveals that his system of fingering originated as a response to two factors: the shape of the hand, and the design of the keyboard. The raised position of black keys makes them most suitably played by the longer fingers, and the thumb's shape and flexibility renders it most useful for playing white keys and turning under other fingers. His fingering principles capitalize on these two factors by striving to maintain two basic physical states: the avoidance of excessive tension, and the arching (curving) of the fingers. In contrast, superfluous tension interferes with the ability of the hand to extend and contract, a gesture basic to realizing keyboard figuration. Although some stretching is necessary for playing keyboard music, it should be brief. Arching allows full participation of the thumb by bringing it into contact with keys and by allowing it to easily turn under the other fingers, which in turn reinforces their arched position.

Bach's comment that "the true method, almost a secret art, has been known and practiced by very few" testifies to the significant changes in fingering technique that had recently developed in his time. These changes resulted partially as a response to the development of tuning systems allowing the performance of music in all twenty-four keys, and partially due to changes in musical style, in which melodic passages increased in complexity.⁷⁹ He particularly focuses on the elevated status of the thumb as an equal partner in fingering, revealing that some keyboardists of his time were still not aware of the benefits of its proper employment.

⁷⁹ Ibid., 41-42.

Bach devotes the remainder of the chapter to presenting principles for the fingering of scales, progressions in parts (i.e., solid and broken intervals), broken figuration, tied notes, and some special fingering situations. Some of his fingering solutions are considered standard practice today, but others are largely absent from modern keyboard methods. This chapter explores Bach's system of fingering by summarizing the principles found in his *Essay*, by inferring certain fingering patterns implicit in selected examples, and by observing certain differences between Bach's eighteenth-century approach to executing scales and chords and today's standard keyboard fingering practices. The chapter concludes with a discussion of selected fingering passages from the *Probestücke*, or *Lessons*, the eighteen pieces Bach appended to his *Essay* in which the vast majority of notes have fingering indicated. Presented as six three-movement sonatas arranged in order of generally increasing technical and interpretive challenges, this collection assembles a wide variety of keyboard idioms, using a different tonality for each piece, thus allowing Bach to illustrate his fingering principles in an extensive number of musical contexts. In Appendix E, I have supplied fingering for selected passages from the first sonata from *Six Sonatas with Varied Reprises for Keyboard*, Wq. 50, demonstrating how Bach's fingering principles can be applied to a piece accessible to an intermediate student.

Principles of Fingering in Bach's *Essay*, Chapter 1

Scales

Bach systematically discusses fingering for the scales of all 24 major and minor keys, often presenting multiple options for the same scale. For minor keys, he uses the melodic form, presenting ascending and descending fingerings. He states that “the so-called easy keys are, in fact, much more challenging and elusive than the so-called difficult ones,” since scales with fewer accidentals possess a greater number of usable fingerings than those with many.⁸⁰ Some of his fingerings for scales match current approaches, while others differ from them, offering approaches that better address the physical design of the keyboard. Among Bach's scale fingering principles that vary from today's standard practices are the use of early techniques in scales with predominantly white keys, the regrouping of tones played by consecutive fingers, and the placement of the thumb directly after and before black keys in certain scales involving black keys.

Establishing general ground rules for playing scales, Bach prohibits crossing finger 2 over 3, 3 over 2, 4 over 5, 5 over 1, and turning the thumb under 5, leaving open as a viable option the older techniques of successive crossings of finger 3 over 4 and finger 2 over the thumb.⁸¹ Even though he cautions keyboardists against using these early techniques in keys with many accidentals, he states that in keys with few or no accidentals, they are “better suited [in certain cases] for the attainment of unbroken

⁸⁰ Ibid., 58.

⁸¹ Ibid., 46. Bach eventually makes an exception for crossing finger 5 with 4, which will be discussed later in this chapter.

continuity than other crossings or the turn [i.e., thumb turns].”⁸² Bach shows that crossing finger 4 over 3 can be used in chromatic runs, but he endorses the use of thumb turns as the better option, in accordance with his recommendation to reserve 4 – 3 for predominantly white-key passages. He restricts the use of finger 5 except at terminations of runs, replacing it with the thumb when a scale continues. He reminds performers that scalar passagework in actual music can begin and end on scale degrees other than the first, instructing keyboardists to readjust fingering from the given templates in order to allow the correct number of fingers to finish a run.

Bach presents three ways to perform a C-major scale in each hand (Fig. 79), and provides contexts demonstrating how each version has occasion to be the strongest choice.⁸³ Although he includes the equivalent of today’s standard C-major scale fingering as an option, he cites the version in which finger 4 crosses finger 3 in the RH and finger 2 crosses finger 1 in the LH as the more common practice.⁸⁴ The older fingering is the superior choice for preserving motion while playing the pattern shown in Figure 80, in which a run spanning a sixth is followed by a downward leap of a fifth. Early fingering minimizes the motion needed at descending leaps by arriving on finger 4 at the top of the run. In contrast, the technique of turning the thumb under is rendered less efficient because the scale does not climb an entire octave before leaping downward.

⁸² Ibid., 58.

⁸³ Score examples taken from Chapter of 1 of C. P. E. Bach’s *Essay* are reprinted with permission from W. W. Norton & Co., Copyright 1949.

⁸⁴ Bach also cites these fingerings as options for playing ascending C minor scales.

Figure 79. C. P. E. Bach, Figure 1, C-Major Scale Fingerings⁸⁵

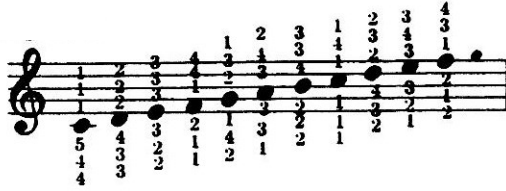


Figure 80. C. P. E. Bach, Figure 2, C-Major Scale with Finger 3 Crossing Finger 4⁸⁶



Bach's third fingering variation arranges tones into segments of three and four, each played with consecutive fingers. This is similar to today's standard fingering, but the groupings are reversed. In the RH, C – D – E – F is placed into a group, followed by G – A – B. In the LH, D – E – F is followed by G – A – B – C, a grouping pattern created by starting the scale with finger 4 on C. This fingering is optimal for runs of a ninth, avoiding an additional crossing at the top of the scale. Although Bach does not give a contextual example for a one-octave scale in sixteenth notes in the LH, using this fingering option for such a passage aligns the finger crossing with the beat, coordinating position shifts with moments of metrical inflection. For the same reason, today's standard fingering is ideal for the RH one-octave scale passage given by Bach in Figure 81, in which the rhythmic pattern places the pitch F on the beat.

⁸⁵ C. P. E. Bach, *Essay*, 46. Figure 1. Bach's original figure number is included here and in all other citations of score examples reproduced from the *Essay*.

⁸⁶ *Ibid.*, 47. Figure 2.

Figure 81. C. P. E. Bach, Figure 2, C-Major Scale with Today's Standard Fingering⁸⁷



The same principles of C-major scale fingering inform Bach's options for playing a G-major scale. Again, he mentions that the equivalent of today's standard fingering is less common. He explains that the technique of crossing finger 3 over 4 and 2 over 1 is best applied on the white keys, but that it can be used to good effect in the presence of a single black key. The potential for rearrangement of note groupings is one of the flexible traits of scales with few black keys. For instance, the reversal of fingering groups generates alternate fingerings for the RH descending A-minor, E-minor, and F-major scales, and in the LH ascending B-flat minor scale. Bach's endorsement of multiple fingerings for scales with few accidentals indicates that a performer should consider the metrical implications and range of scalar passages when selecting fingering in these keys.

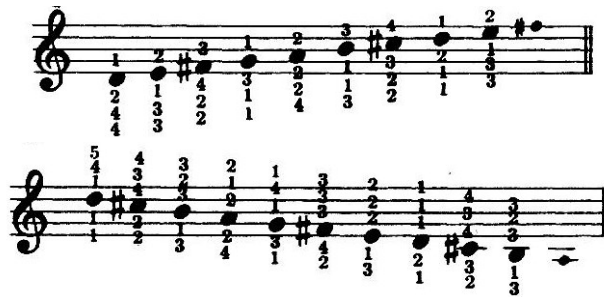
Before presenting scales that involve black keys, Bach states a fundamental principle that influences a great majority of his fingering choices: "The thumb of the right hand is brought in after one or more black keys in ascending, before them in descending, and the left thumb after in descending, before in ascending."⁸⁸ This principle governs today's fingering choices for several scales with many flats or sharps, such as E major, C-sharp minor, B major, G-sharp minor, F-sharp major, and D-flat major. The numerous black keys limit other fingering possibilities, and thus Bach's solutions for these scales

⁸⁷ Ibid., 46. Figure 2.

⁸⁸ C. P. E. Bach, *Essay*, 48.

match today's standard fingerings.⁸⁹ However, application of this principle to keys with a few flats or sharps results in a number of scale fingerings that differ from the way scales are generally presented in modern pedagogical method books. This is illustrated in the LH fingering for a D-major scale (see the fingering given closest to the notes in Figure 82). Placement of the thumb directly before black keys on E and B results in starting the scale with finger 2. His fingering stems from an understanding that the raised position of the black keys makes it is easier for fingers to cross over the thumb to black keys than to white keys. Other scales in which Bach's principle creates solutions that differ from commonly used fingerings include the ascending LH scale in F major and both ascending and descending LH scales in F minor, G minor, G major and A major.

Figure 82. C. P. E. Bach, Figures 20-21, D-Major Scale Fingerings⁹⁰



For several scales with a few flats or sharps, Bach also approves additional LH fingerings. Some of these make use of the older practice of crossing 2 over 1 two or more times in succession, as is seen in one of the C-major and D-major scale fingerings.

⁸⁹ Starting with the F-sharp minor scale, Bach points out that the descending minor scales with many sharps or flats use the same fingering as their relative major scales. In essence, one is playing the major scale starting on the submediant scale degree.

⁹⁰ Ibid., 52. Figures 20-21.

In the cases of F major and A major, one of the alternate fingerings matches the current fingering practice of 5 – 4 – 3 – 2 – 1. Bach explains that all the variants for F major “are useful in certain situations and should therefore be practiced.”⁹¹ For A major, he is more preferential, recommending the version that starts with 2 – 1 – 3, but acknowledges that 5 – 4 – 3 – 2 – 1 is “nevertheless...required at times.”⁹² He clearly recognizes that rules for scale fingerings are templates that should be adjusted based on the musical context, and he understands that a fingering such as 5 – 4 – 3 – 2 – 1 has its merits for figuration based on only five notes.

Modern elementary piano pedagogy favors pentascale-based melodies, exercises, and accompaniment patterns, usually prior to the introduction of complete scales.⁹³ Once the student advances beyond pentascale-based material, pentascale fingerings are retained for many of the LH scales beginning on white keys. Alternative fingerings are not presented, even though they serve the physical layout of the keyboard better in certain contexts. Bach does not even list 5 – 4 – 3 – 2 – 1 as an alternative fingering for the LH in D major, instead beginning the scales with finger 4 (Fig. 82). He felt 5 – 4 – 3 – 2 – 1 was an obvious “adjustment” to scale fingering that should be made in the context of a pentascale-based passage, and focused on presenting the three fingerings that he believed were the most useful for scale passages of greater length.

A few scales require an exception to the rules governing placement of the thumb after black keys due to the specific arrangement of black and white keys. The RH

⁹¹ Ibid., 50.

⁹² Ibid., 53.

⁹³ See Chapter 5 for more discussion of the phenomenon in modern elementary piano pedagogy of delaying exposure to musical content (and thus fingering principles) that expand beyond pentascale structures.

ascending E melodic minor scale is a clear example. If the thumb is placed after the F-sharp, a second thumb turn is needed to complete the octave. The fingering of 1 – 2 – 3 – 1 for the beginning of the scale is not even considered an option by Bach, who states that 1 – 2 – 3 – 4 – 1 is the only good fingering.⁹⁴ Even though his principle doesn't state that the thumb must precede black keys in the right hand ascending, he clearly favors placing the thumb beside groups of black keys when practical.

The LH ascending B melodic minor scale also features a similar exception, starting with 4 – 3 – 2 – 1. Bach notes that remembering to avoid the thumb on D and to place it on E instead is “a difficulty that makes the scale rather treacherous.”⁹⁵ The RH descending B-minor scale, on the other hand, facilitates following his principle. In the text (and not notated on the score example) he allows a fingering of 5 – 4 – 3 – 2 – 1 – 3 – 2 – 1 as an alternative, but he restricts its use to one octave, stating “Extension of it might easily prove confusing.” This shows that he saw a connection between security of technique and the avoidance of crossing over the thumb to white keys in a scale with more than one black key.⁹⁶

Bach begins the ascending RH B-flat major, E-flat major, and A-flat major scales with finger 2. Alternatively, some method books place finger 4 on B-flat and 3 on E-flat and A-flat in order to match the fingering of higher octaves. In the case of B-flat major, starting with finger 2 requires noticeably less turning motion of the hand after the first tone.

⁹⁴ Ibid., 50.

⁹⁵ Ibid., 53.

⁹⁶ Ibid.

Progressions in Two Parts

Bach uses the phrase “progressions in parts” to refer to patterns of consecutive simultaneously sounding tones at various intervals. Beginning with seconds, he systematically discusses fingering for each interval both in block form and as figuration based on broken intervals. In ordinary circumstances, he recommends that broken intervals use the same fingering as the block intervals on which they are based. Block seconds are played with adjacent fingers determined by the tones preceding and following, while the thumb should avoid black keys. For melodic passages of successive two-note slurs, in which the second tone of a pair is repeated to become the first tone of the next pair, he recommends the repeated use of a pair of adjacent fingers. He presents this in opposition to using longer stretches of consecutive fingers for two pairs of seconds, such as 2 – 3 – 3 – 4.

Myriad fingerings are possible for parallel thirds. Bach provides multiple guidelines for their fingering, with specific considerations for the use of the thumb and finger 5. Bach recommends that finger 5 be employed only at the upper and lower boundaries of a passage of thirds. Thus, it should not be repeated on changing parallel thirds, or followed by another finger for thirds moving in the same direction. Furthermore, it should not be used on black keys unless the other tone of the third is also a black key. The thumb should likewise avoid black keys unless required by the context of a leap. Bach expressly prohibits playing thirds with 5-1, 5-2, and 4-3.⁹⁷ Although these combinations facilitate the execution of chromatic passagework in thirds found in

⁹¹ Ibid., 60.

piano music of later centuries, they create unnatural stretches and contractions that Bach considered undesirable. The use of finger 4 in the RH on the E-flat in part *b* of Figure 83 is preferable to finger 5 as it appears in part *a*. Likewise, the weaving of fingers 1-3 across fingers 2-4 in the descending thirds in the LH in Figure 84 is preferable to playing 3-5 because of the B-flat. However, the large leap in Figure 85 allows the use of finger 5 on the high E-flat in the RH. Use of finger 5 in the LH is allowed on the black key in Figure 86 because of the pairing of D-sharp and F-sharp, but its use on the same pitch in both measures of Figure 87 is not good because it is followed by thirds in the same direction.

Figure 83. C. P. E. Bach, Thirds, Figure 42, a-b.⁹⁸



Figure 84. C. P. E. Bach, Thirds, Figure 42, b, m. 2.⁹⁹



Figure 85. C. P. E. Bach, Thirds, Figure 42, m. 7.¹⁰⁰



⁹⁸ Ibid., 61. Figure 42, a-b.

⁹⁹ Ibid., 61. Figure 42, b, m. 2.

¹⁰⁰ Ibid., 61. Figure 42, b, m. 7.

Figure 86. C. P. E. Bach, Thirds, Figure 42, c.¹⁰¹



Figure 87. C. P. E. Bach, Thirds, Figure 42, d.¹⁰²



Figure 88. C. P. E. Bach, Thirds, Figure 42, mm. 1-3.¹⁰⁵

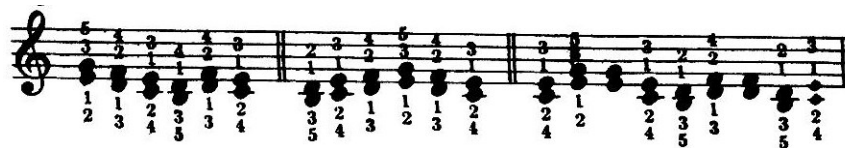


Figure 89. C. P. E. Bach, Thirds, Figure 42, m. 6.¹⁰⁶



Figure 90. C. P. E. Bach, Thirds, Figure 42, c, m.3.¹⁰⁷



Figure 91. C. P. E. Bach, Thirds, Figure 42, b, m. 2.¹⁰⁸



Figure 92. C. P. E. Bach, Thirds, Figure 42, e, m. 2.¹⁰⁹



¹⁰⁵ Ibid., 60. Figure 42, mm. 1-3.

¹⁰⁶ Ibid., 61. Figure 42, m. 6.

¹⁰⁷ Ibid., 61. Figure 42, c, m. 3.

¹⁰⁸ Ibid., 61. Figure 42, b, m. 2.

¹⁰⁹ Ibid., 61. Figure 42, e, m. 2.

Bach's examples in thirds advocate the use of repeated pairs of fingers for various situations. These include stepwise parallel thirds in which one of the thirds consists of two black keys, parallel thirds separated by an interval of a third, thirds consisting of two white keys moving to thirds containing one black key, and parallel thirds on white keys in rapid tempos. His recommended alternative to his example of poor fingering discussed earlier in Figure 87 is seen in Figure 90 above, in which 2-4 is repeated on successive thirds descending by step. Some examples indicate that the same finger should be used to play the common tone shared by parallel thirds that are an interval of a third apart, sometimes resulting in the quadruple repetition of a pitch by the same finger (Fig. 88). Other examples show the use of repeated 4-2 fingering for thirds with two white keys moving to thirds with one black key, demonstrating that Bach prefers a quick hand shift over placing fingers 1 or 5 on a black key (Fig. 92).

Bach advocates the repeated use of the same pair of fingers, either 3-1 or 4-2, for both broken and harmonic thirds in rapid tempo using all white keys.¹¹⁰ This allows the hand to shift across the keys at a uniform rate while maintaining a rounded hand position. Furthermore, this fingering can be executed with ease if one adopts Griepenkerl's description of J. S. Bach's hand position, characterized "by the elongated and almost upright holding of the little finger and the angled position of the thumb on the keys," which facilitates a gripping motion of the fingers as they glide off of the keys.¹¹¹ Passages of broken thirds in fast tempo that incorporate black keys require some

¹¹⁰ Ibid., 62.

¹¹¹ Friederich Conrad Griepenkerl, "Preface to J. S. Bach's *Chromatic Fantasy and Fugue* (1819)," trans. Quentin Faulkner, quoted in Speerstra, *Bach and the Pedal Clavichord*, 166-171. See Chapter 3 for further discussion.

modification. C. P. E. Bach's solution mixes pairs of fingering, using 3-1 and 4-2. The thumb is avoided on black keys, and 3-1 is used when a white key appears at the top of a third in the LH, or the bottom of a third in the RH. This technique is also useful when finger 1 or 5 must sustain a tone while another voice executes broken thirds. In this context, finger 1 or 5 may play a black key, and 5-3 or 2-1 respectively may be used to play thirds that lie a large distance away from the sustained tone.¹¹²

The fingerings for larger intervals share similar principles with fingering for thirds. Like thirds, parallel block and broken fourths on white keys can be played using repeated pairs of fingers, either 4-1 or 5-2.¹¹³ Bach allows the option of using 2-4 for instances of broken fourths involving black keys. When broken fourths are part of a larger broken figure such as a first inversion or second inversion chord, the fingering of the parent block chord is used. Fifths and sixths are fingered according to the same principles of thirds and fourths, and may be executed using 4-1, 5-1, and 5-2. Bach allows repeated use of the 5th finger for these larger intervals. He recommends the use of 5 and 1 for intervals of a seventh or larger, including black keys. Figure 93 shows two examples of octave leaps that are best played with 2 or 4 instead of 1 or 5 due to stepwise figures that follow. His concern for a safe, healthy stretching of the hand is evident in his allowance of the thumb on black keys if a keyboardist's hand finds a particular stretch hazardous.

¹¹² Ibid.

¹¹³ Ibid., 63. Bach's examples show that passages of parallel fourths occur as upper voices of parallel six-three chords.

Figure 93. C. P. E. Bach, Figure 48, Special Fingering for Octave Leaps¹¹⁴



Progressions in Three Parts

Bach gives four options for playing triads, listing several specific chords that should be played with a particular fingering. The following summary can be surmised from the descriptions he provides. Triads consisting of three white keys may be played with 5-3-1, 5-4-2, or 4-2-1 in either hand. His latter two options imply usage in the context of other chords that precede or follow the triad. For example, by playing an F-major triad in the RH with 4-2-1, one is poised to shift to a B-flat triad in second inversion with 5-3-1. Similarly, a RH F-major triad played with 5-4-2 is positioned to play a D minor seventh triad in root position.

The fingering 5-3-2 is reserved for triads which involve one or two black keys. Bach specifically forbids the use of 5-4-2 for triads that have a black key as the third of the chord, stating that the longer third finger is better suited for playing the black key, but his listing of chords implies that 5-3-1 is not desired, either. Also, he avoids use of the thumb for chords such as B-flat major, B minor, and D-flat major, which suggests that he

¹¹⁴ Ibid., 65. Figure 48.

prefers to keep the hand closer to the front of the keys except when all chord tones fall on black keys. By avoiding the thumb even when both outer tones of a triad fall on black keys, his fingering allows the thumb to freely prepare for use on a subsequent chord. A LH progression from D-flat major in root position to F major in first inversion is one example of this situation. By process of elimination using Bach's listing of chords, it is implied that triads with three black keys can be played with 5-3-1.

Three-toned chords that span the interval of a sixth are fingered in numerous ways. Most of the fingerings for chords consisting of only white keys are commonly encountered today. However, Bach's aversion to placing the thumb on black keys creates two fingering options not usually presented in modern methods. Figure 94, example *a*, demonstrates finger 2 should cross over the thumb, in contrast to today's standard fingering, in which the sixth of this chord would normally be played with the thumb. This fingering prevents either a twisting of the hand, or a shifting of the hand towards the back of the key. The similar chord structure in Figure 95 is fingered with 2 instead of 1 for the same reasons.

Figure 94. C. P. E. Bach, Figure 51, mm. 11-14, *Special Fingering for Chords*¹¹⁵



¹¹⁵ Ibid., 66. Figure 51, mm. 11-14.

Figure 95. C. P. E. Bach, Figure 51, m. 9, Special Fingering for Three-toned Chords¹¹⁶



A general fingering principle can be surmised from Bach's examples of various chord shapes spanning a sixth and larger that contain an interval of a third on the outside of the hand. Fingers 5 and 4 are used when both keys are white, but fingers 5 and 3 are used when the inner tone of the third is black. This results in the use of fingers 1-2-4-5 to play white-key four-toned chords doubled at the octave, such as LH C-major chords in root position and RH F-major chords in second inversion. Likewise, his examples show that root position seventh chords consisting of all white keys should be played with 1-2-4-5, whereas 1-2-3-5 is used for a D dominant seventh chord in the LH and a D half diminished seventh chord in the RH, in which the tone that finger 4 would otherwise play is a black key. While fingerings of 1-2-4-5 do appear in some modern publications of chord fingerings, it is common to see these chords fingered with 1-2-3-5. Bach has no problem with a small stretch between fingers 4 and 5, so long as it does not involve placing finger 4 on a black key while finger 5 is on a white key. In the reverse contexts, when the chord incorporates a third on the inside of the hand, he indicates using finger 2 instead of the thumb for the outermost tone if the chord spans the interval of a seventh, but only for keyboardists with long fingers. The thumb is always allowed as an option for playing intervals of a seventh and larger.

¹¹⁶ Ibid., 66. Figure 51, m. 9.

Special considerations

Similar to the performance of figuration based on progressions in two parts, Bach states that fingering for broken figuration and leaps that can be reduced to chords should be based on the fingering of those chords. However, he states that “good performance...calls for an occasional slight change in the fingering of broken chords. The third finger is sometimes better than the fourth in descending arpeggios...”¹¹⁷ Bach claims that a lack of clarity may result from the inherent weakness of the fourth finger. Therefore, he would play a LH block C-major chord in four voices with fingers 1-2-4-5, but as a descending arpeggio with fingers 1-2-3-5.

In textures with sustained tones and wide stretches, Bach relaxes some of his fingering rules, recommending the repetition of fingers 5 and 1 and using the thumb on black keys, but using finger substitution only to avoid a greater difficulty. He warns players that finger substitution should only be used on tones of longer duration and as a last resort, stating that “Couperin, who is otherwise so sound, calls for replacement [i.e., substitution] too frequently and casually.”¹¹⁸ Bach’s examples in which he supports the use of substitution involve octave leaps to sustained tones that then move farther in the same direction, as well as for sustained tones of an arpeggio when the hand position must shift to play new figuration. However, in passages such as the one seen in Figure 96, where one might easily use substitution, he clearly avoids this technique.

¹¹⁷ C. P. E. Bach, *Essay*, 69.

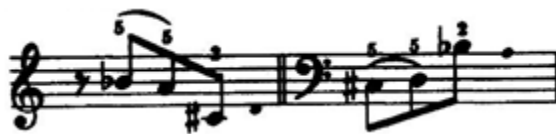
¹¹⁸ *Ibid.*, 72.

Figure 96. C. P. E. Bach, Figure 56, Repeated Fingers in Two-voiced Textures¹¹⁹



Bach states that “we find, at times, that we have too few [fingers]” in certain keyboard passagework, and recommends occasional use of the same finger on stepwise notes.¹²⁰ He offers as the most suitable context the motion from a black key to an adjacent white key (Fig. 97), but states that it can be used for both slurred and detached tones, and occasionally for two adjacent white keys.

Figure 97. C. P. E. Bach, Figure 61, Use of the Same Finger on Stepwise Tones¹²¹



Although he forbids the crossing of finger 4 over finger 5, he makes an exception for the situation seen in Figure 98. A descending leap of sixth to a white key is followed by a black key in the same direction. In a moderate tempo, this fingering is useful in that it involves less hand motion and leaves less room for error than placing finger 5 on the black key.

¹¹⁹ Ibid., 70. Figure 56.

¹²⁰ Ibid., 73.

¹²¹ Ibid., 73. Figure 61.

Figure 98. C. P. E. Bach, Figure 64, Crossing Finger 4 Over Finger 5¹²²



Bach concludes his chapter on fingering with a referral to study the eighteen *Probestücke* appended to his *Essay*. These “test pieces” are sophisticated compositions, in which Bach addresses dual pedagogical functions by applying fingering principles to fine pieces of music. While many of these pieces are too challenging for intermediate piano students, all of them provide a wealth of fingering information in multifarious musical contexts that teachers and students can apply to eighteenth-century keyboard literature of many difficulty levels.

Principles of Fingering in the *Probestücke*

The fingering in the *Probestücke* closely follows the principles Bach established in his *Essay*. Sometimes, he applies his fingering principles in ways that further define certain general examples or statements in the *Essay*. The following discussion selects such passages that further clarify his implementation of fingering principles. Topics discussed including the use of repeated fingers, the pervasive influence of subsequent figuration on fingering choices, the fingering of large intervals under a slur in slow tempos, variations in the use of fingers 3 and 4 in chord-based figuration, the rationed use of finger substitution, the use of early fingering techniques for scalar passages, and the implications of fingering of parallel thirds and sixths. In addition, some passages feature

¹²² Ibid., 75. Figure 64.

exceptional fingerings, and are discussed in the contexts of tempo and special problems arising from the figuration.

Under normal circumstances, Bach uses different fingers for adjacent notes. His license for using a finger twice in succession on changing notes, which he says is permissible on occasion, is applied in a several different ways in the *Probestücke*. By using 5 – 5, he tends to avoid the constricted position created when moving by step from a black key to a white key using 5 – 4. Examples occur in Sonata I, mvt. II in the LH in m. 18 and in mm. 23-24 (Fig. 99).¹²³ Finger 5 is used on three successive tones in mm. 7-8, also facilitating a separation of notes at the cadence. 5 – 5 is used in similar cadential formulas throughout the *Probestücke* (Fig. 100). In Sonata I, mvt. III, Bach's license for crossing finger 4 over finger 5 is applied in m. 19 (Fig. 101). This fingering avoids a similar constricted position that would result from using 4 – 5 when moving by step from a white key to a black key. In the LH in mm. 11-12 of Sonata II, mvt. I, the repeated use of finger 5 accounts for the large harmonic intervals that follow, allowing finger 2 to play the black key instead of the thumb (Fig 102).

¹²³ The analogous passage in m. 20 uses 5 – 4, now favored with the reversal of black and white keys.

Figure 99. C. P. E. Bach, Sonata I, mvt. II, mm. 18-24.¹²⁴



Figure 100. C. P. E. Bach, Sonata I, mvt. II, mm. 7-8.¹²⁵



Figure 101. C. P. E. Bach, Sonata I, mvt. III, mm. 18-19.¹²⁶



¹²⁴ Bach, Carl Philipp Emanuel, *Probestücke, Leichte, and Damen Sonatas*, ed. David Schulenberg, vol. 3 of *Carl Philipp Emanuel Bach: The Complete Works: Keyboard Music*, ed. Darell M. Berg (Los Altos, CA: Packard Humanities Institute, 2005), 4. Reprinted with permission.

¹²⁵ Ibid.

¹²⁶ Ibid., 5.

Figure 102. C. P. E. Bach, Sonata II, mvt. I, mm. 11-12.¹²⁷



An instance of a legato slide using finger 5 similar to Bach's *Essay* example shown in Figure 97 occurs in Sonata II, mvt. II in m. 15 (Fig. 103). This fingering shows that he determined that a slide was less treacherous immediately following the leap of a seventh than maneuvering finger 4 in between two black keys to play the high G. The less-common slide of finger 5 on two white keys occurs in the RH at the end of the first unmeasured section of the Fantasia in Sonata VI, at the first cadence following the key signature change to E-flat major (Fig. 104). In this instance, the RH must also execute an ornament in the inner voice. Bach executes the ornament with finger 3 on the main note, which leaves no choice but to slide finger 5. In Sonata IV, mvt. III, mm. 6-7, Bach prescribes a distinctly staccato touch, and allows the use of repeated fingers on adjacent tones in a single-voiced texture (Fig. 105). In m. 48, slurred parallel thirds descend the interval of a fourth (Fig. 106). Bach's fingering of 5-3 to 3-2 connects the tones of the upper voice, but the tones in the lower voices cannot be connected with a legato touch because finger 3 is repeated. His fingering indicates that both voices in a pair of slurred parallel thirds do not have to be completely connected to produce an overall slurred effect, especially if finger 3 is shifted quickly. Furthermore, it shows that he prefers this

¹²⁷ Ibid., 6.

method of execution as opposed to other fingering possibilities that allow connection of both voices but that require more stretching or placement of the thumb on a black key (5–4 to 3–2 or 5–3 to 2–1, respectively). Measures 24–25 in Sonata II, mvt. III contain an excellent example of an articulation on a downbeat produced by repetition of a finger on adjacent notes (Fig. 107). Moreover, placing finger 3 on the D in m. 25 avoids a finger substitution needed to prevent playing the subsequent C-sharp with the thumb.

Figure 103. C. P. E. Bach, Sonata II, mvt. II, m. 15.¹²⁸



Figure 104. C. P. E. Bach, Sonata VI, Fantasia, Excerpt from First Unmeasured Section.¹²⁹



¹²⁸ Ibid., 8.

¹²⁹ Ibid., 34.

Figure 105. C. P. E. Bach, Sonata IV, mvt. III, mm. 6-7.¹³⁰



Figure 106. C. P. E. Bach, Sonata IV, mvt. III, m. 48.¹³¹



Figure 107. C. P. E. Bach, Sonata II, mvt. III, mm. 24-25.¹³²



In the *Essay*, Bach states, “tones repeated at a moderate speed are played by a single finger, but alternating fingers are employed in fast repetitions.”¹³³ However, in m. 20 of Sonata I, mvt. I, he recommends switching fingers on a motif where he elsewhere uses repeated fingers (Fig. 108). The switch positions the hand for the leap on the

¹³⁰ Ibid., 19.

¹³¹ Ibid., 20.

¹³² Ibid., 9.

¹³³ C. P. E. Bach, *Essay*, 73.

following pitch, showing that he refers to prepare for position changes even in the presence of intervening rests. Sonata V, mvt. I in mm. 30-31 and mm. 34-35 demonstrates exceptions to Bach's statements about repeated tones in a fast tempo (Fig 109). In both instances, a different fingering is possible, but he uses the same finger on repeated tones at the bar lines.¹³⁴ The first instance shows that Bach favors repeating a finger once in a fast tempo in order to allow fingers 3, 2, and 1 to execute the trilled turn. He states that while all fingers should practice the trilled turn because "we are not always in a position to employ only the best fingers for an ornament," fingers 3, 2, and 1 are the easiest to use for this ornament, assuming the thumb falls on a white key.¹³⁵ The second instance shows that he prefers to repeat a finger in order minimize hand shifting caused by an alternate fingering. In both instances, the exception is granted for a single occurrence of a finger repetition, as opposed to multiple repetitions of a tone at a fast tempo. Measure 21 of Sonata III, mvt. II presents a special case, in which two voices meet on a unison tone, one of which is already sustaining the tone (Fig. 110). Bach's solution is to alternate hands when repeating this tone.

Figure 108. C. P. E. Bach, Sonata I, mvt. I, mm. 20-21.¹³⁶



¹³⁴ A fingering of 3 – 2 – 1 – 3 – 5 is one alternative for the RH at m. 35, beats 1- 2.

¹³⁵ C. P. E. Bach, *Essay*, 124.

¹³⁶ C. P. E. Bach, *Probestücke*, 3.

Figure 109. C. P. E. Bach, Sonata V, mvt. I, mm. 30- 31 and 34-35.¹³⁷



Figure 110. C. P. E. Bach, Sonata III, mvt. II, mm. 21.¹³⁸



Bach's fingering choices throughout the entire collection are strongly influenced by anticipation of the figuration that follows. Like his father, Bach uses non-consecutive fingers to prepare for leaps beyond the hand position of the notes that are already being played. This is illustrated from the very first measures of the collection. In m. 1 of Sonata I, mvt. I, he uses 5 – 2 in the RH for stepwise motion to prepare for the ascending leap of a third (Fig. 111). Skipping more fingers than usual for certain intervals is also common. In mm. 2-3, he uses 1 – 4 at the bar line to execute an ascending third (Fig. 111). This fingering allows finger 3 to easily land on the two-note slur via a lateral shift

¹³⁷ Ibid., 22.

¹³⁸ Ibid., 12.

by positioning the thumb on the preceding note. Bach often uses 5 – 4 for melodic thirds to allocate enough fingers for the remaining passagework. At mm. 10-11, the use of 5 – 4 in the slurred passage across the bar line indicates that Bach prefers a small stretch between fingers 5 and 4 to one between 3 and 2, which would result from placing 3 on the B-flat (Fig. 112). In mm. 14-16, playing the E and C in the RH of m. 14 with 5 – 4 allows the rest of the phrase to be completed with one hand position because the remaining tones descend the interval of a fourth to G (Fig. 113). In mm. 25-26 of Sonata III, mvt. I, he uses 4 – 2 in the LH when moving from the last sixteenth note of a beat into the following beat (Fig. 114). This fingering secures execution of the diminished fourth on beat three of m. 25 with 1 – 4, the perfect fourth on beat two of m. 26 with 2 – 4, and the major third on beat 3 of m. 26 with 2 – 4. Each of these fingerings accommodates the localized arrangement of black and white keys for each interval, maintains a natural hand shape, and emphasizes the long-short grouping of the rhythmic figure, which might otherwise be overlooked.

Figure 111. C. P. E. Bach, Sonata I, mvt. I, mm. 1-4.¹³⁹



¹³⁹ Ibid., 3.

Figure 112. C. P. E. Bach, Sonata I, mvt. I, mm. 10-11.¹⁴⁰



Figure 113. C. P. E. Bach, Sonata I, mvt. I, mm. 14-16.¹⁴¹



Figure 114. C. P. E. Bach, Sonata III, mvt. I, mm. 25-27.¹⁴²



Ornaments are usually fingered with regard to surrounding figuration. Turn figures fingered with 4 – 3 – 2 – 1 facilitate leaps that follow, as seen in m. 19 of Sonata I, mvt. I (Fig. 115). In mm. 15 - 16 of Sonata I, mvt. II, the fingering of 5 – 4 at the bar line demonstrates the common practice of articulating after leaps, in this case the descending leap of a diminished fifth (Fig. 116). This fingering also prepares for the

¹⁴⁰ Ibid.

¹⁴¹ Ibid.

¹⁴² Ibid., 10.

execution of the *trilled turn* that ornaments the downbeat by avoiding placement of the thumb on the F-sharp. Like his father, Bach uses finger 3 on the principal note of mordents whenever possible, which often results in hand shifts afterwards. In m. 6 of Sonata IV, mvt. II, he pairs fingers 3 and 2 in the RH in beats one and two to execute descending scalar passages involving short trills (Fig. 117). This is a manifestation of his statement in the *Essay* that “Since the short trill demands...speed in execution, it is best performed by those fingers that trill the best...it is permissible, as illustrated in Figure 114 [Bach’s original figure number], to take liberties with the fingering...” (Fig. 118).¹⁴³

Figure 115. C. P. E. Bach, Sonata I, mvt. I, m. 19.¹⁴⁴



Figure 116. C. P. E. Bach, Sonata I, mvt. II, mm. 15-16.¹⁴⁵



¹⁴³ C. P. E. Bach, *Essay*, 111.

¹⁴⁴ C. P. E. Bach, *Probestücke*, 3.

¹⁴⁵ *Ibid.*, 4.

Figure 117. C. P. E. Bach, Sonata IV, mvt. II, m. 6.¹⁴⁶



Figure 118. C. P. E. Bach, Figure 114, Fingering for Passages with Short Trills.¹⁴⁷



Like Sebastian Bach, Emanuel Bach freely places the thumb to prepare for figuration that follows. A comparison of the LH of mm. 3-7 to mm. 27-30 in Sonata I, mvt. II shows how Bach fingers similar passagework differently to anticipate leaps in opposite directions (Fig. 119). He follows fingers 1 and 2 with finger 1 when playing the C on the downbeat of m. 4, anticipating the descending leap of a diminished seventh in the bass line in m. 7. In contrast, the bass line only descends a minor third below the C in m. 28, followed by an ascending leap of an octave in m. 29. Therefore, a thumb turn is not necessary, and the fingers can play in their natural order. Broken figuration based on an A-minor chord in mm. 5-6 is not fingered based on one block chord for the whole measure, but rather prepares fingering for each ascending interval span by shifting the position of the thumb. In m. 13 in Sonata I, mvt. I, Bach turns the thumb under finger 2

¹⁴⁶ Ibid., 17.

¹⁴⁷ C. P. E. Bach, *Essay*, 111. Figure 114.

in preparation for figuration in the next measure, even with an intervening rest between hand positions (Fig. 120). This further demonstrates that he wishes to prepare for position shifts as soon as is practical. The LH leaps in mm. 13 and 19 of Sonata IV, mvt. I apply Bach's license to play octaves with 5 – 2 in order to account for stepwise figuration immediately following (Fig. 121).¹⁴⁸ In m. 11 of Sonata IV, mvt. II, Bach uses 5 – 2 for the descending octave leap in the RH to avoid placing the thumb on a black key, which is followed by a leap of a third fingered with 2 – 1 (Fig. 122).

Figure 119. C. P. E. Bach, Sonata I, mvt. II, mm. 3-7 and 27-30.¹⁴⁹



Figure 120. C. P. E. Bach, Sonata I, mvt. I, m.13-14.¹⁵⁰



¹⁴⁸ Ibid., 65.

¹⁴⁹ C. P. E. Bach, *Probestücke*, 4.

¹⁵⁰ Ibid., 3.

Figure 121. C. P. E. Bach, Sonata IV, mvt. I, m. 13 and m. 19.¹⁵¹



Figure 122. C. P. E. Bach, Sonata IV, mvt. II, m. 11.¹⁵²



In some contexts, Emanuel Bach adjusts fingering for impending figuration to an even greater degree than observed in Sebastian Bach's extant fingering examples. In m. 19 of Sonata II, mvt. I, the LH thumb turns under finger 2 at the interval of a third (Fig. 123). While this fingering anticipates material that lies ahead, it also produces a shift in hand position before the completion of the local figural gesture. This illustrates how Emanuel Bach is sometimes less inclined to line up melodic figuration with lateral shifts of hand position when presented with the opportunity to prepare for tones that follow

¹⁵¹ Ibid., 15-16.

¹⁵² Ibid., 17.

immediately. In mm. 25-26 of Sonata II, mvt. I, the fingering of the diminished fifth sonority demonstrates how he aligns voice leading of chords with fingering choices, even across several rests (Fig. 124). He chooses to use finger 5 on the F-sharp for the purpose of allowing 5-1 to resolve to the minor third with 2-4. In m. 4 of Sonata IV, mvt. II, he engineers a natural approach to the mordent in the bass voice by executing the ascending D-major arpeggio with the unusual 5 – 3 – 4 – 1 (Fig. 125). This prevents finger 2 from having to quickly move from the dotted thirty-second note on A to the lower auxiliary of the mordent.

Figure 123. C. P. E. Bach, Sonata II, mvt. I, m. 19.¹⁵³



Figure 124. C. P. E. Bach, Sonata II, mvt. I, mm. 25-26.¹⁵⁴



¹⁵³ Ibid., 6.

¹⁵⁴ Ibid., 7.

Figure 125. C. P. E. Bach, Sonata IV, mvt. II, m. 4.¹⁵⁵



The second movement of Sonata II incorporates many leaps and arpeggios that extend beyond an octave. Bach's fingering solutions for slurring these figures in the context of an *Adagio sostenuto* tempo marking at times call for stretches that may surprise the modern pianist. Throughout this piece, finger 2 is the digit of choice for connecting various sizes of intervals in the LH that involve thumb crossings to connect extended arpeggios. Among the more unorthodox instances, the LH arpeggios in m. 8 call for finger 2 to stretch across the thumb an interval of a sixth, and an interval of a diminished fifth in m. 9 (Fig. 126). The latter stretch fingering avoids the only alternative possibility of placing the thumb on the E-flat, and is not too difficult because of the crossing from a white key to a black key, but the former stretch at first glance seems best avoided by placing finger 5 on the D in beat 3 of m. 8. However, the position of the RH at the start of the arpeggio lies within the path of the LH if it were to begin with finger 5, requiring the LH palm to pull away from the keys until the RH completes its phrase. Bach thus prefers a large stretch to provide for comfortable choreography between the

¹⁵⁵ Ibid., 17.

hands when playing in close proximity.¹⁵⁶ 2 – 1 fingering is used for the stepwise motion in the LH to connect tones of an arpeggio that is extended by passing tone motion, as seen in m. 10, beats 3 and 4 (Fig. 126).

Figure 126. C. P. E. Bach, Sonata II, mvt. II, mm. 8-10.¹⁵⁷



Also noteworthy in this movement are several RH leaps of a 10th executed with 2 – 5, again as a result of avoiding thumbs on the black keys. Some hands do not have a span sufficient enough to connect these tones even with using 1 – 5. Perhaps Bach simply notated the ideal articulation of this gesture, keeping it consistent with the surrounding slurs. Moreover, the expressive *forte* markings that consistently appear at these spots may produce a tone of sufficient strength to resist total damping while the hand makes a quick shift to the tenth above. In mm. 9-10, the destination of the figure

¹⁵⁶ The unmeasured conclusion to Sonata IV, mvt. II, includes another instance of finger 2 of the LH crossing over the thumb at the interval of a sixth due to the position of the RH. The LH plays E-sharp ascending to C-sharp while the RH sustains an intervening B.

¹⁵⁷ Ibid., 7.

following the RH tenth is an A-flat, the same pitch that begins the tenth (Fig. 126). Bach outlines this structure by using finger 2 on both pitches. The fingering for the tenth in m. 13 is an exception in which he allows the thumb to play the E-flat (Fig. 127). The following figure does not return to E-flat.

Figure 127. C. P. E. Bach, Sonata II, mvt. II, mm. 13-14.¹⁵⁸



Measures 6 and 8 of Sonata II, mvt. II shows Bach's preference for using finger 4 in four-tone arpeggios in the LH (Figures 128 and 126). Although it is not explicitly so stated in the *Essay*, mm. 10 and 19 of Sonata II, mvt. III indicate that the same fingering is recommended for block and broken four-toned chords with black keys in the outer voices (Fig. 129). However, in Sonata I, mvt. I, comparing m. 16 to m. 32 illustrates his recommendation to use finger 3 in the special case of descending arpeggios in the LH (Fig. 130). Sometimes he switches from finger 3 to finger 4 in the middle of an arpeggio, as seen in Sonata II, mvt. III in m. 6, RH (Fig. 131). This change is of relatively minor consequence for this figure, and does not function to anticipate a hand shift. However, it does cause the hand to pull back into its natural shape, creating good fingering for

¹⁵⁸ Ibid.

localized segments of this arpeggio. In Sonata II, mvt. I in mm. 35-36, Bach similarly pulls finger 5 back towards the center of the LH rather than using finger 4 (Fig. 132

Figure 128. C. P. E. Bach, Sonata II, mvt. II, m. 6.¹⁵⁹



Figure 129. C. P. E. Bach, Sonata II, mvt. III, m. 10 and m. 19.¹⁶⁰



¹⁵⁹ Ibid.

¹⁶⁰ Ibid., 8.

Figure 130. C. P. E. Bach, Sonata I, mvt. I, m. 16 and m. 32.¹⁶¹



Figure 131. C. P. E. Bach, Sonata II, mvt. III, m. 6 with Pickup.¹⁶²



Figure 132. C. P. E. Bach, Sonata III, mvt. I, mm. 35-36.¹⁶³



Finger substitution is used sparingly in the *Probestücke*, in accordance with Bach's comments in the *Essay* regarding this technique. He tends to use lateral shifts, small stretches, or repeated fingers when possible. In cases where a lateral shift would involve moving to a finger on the side of the hand opposite to the direction of the hand shift, Bach sometimes employs substitution. One example occurs in Sonata III, mvt. I in

¹⁶¹ Ibid., 3.

¹⁶² Ibid., 8.

¹⁶³ Ibid., 11.

the LH at m. 11 (Fig. 133). The substitutions in Sonata II, mvt. III at m. 12 and in analogous passages are good examples of Bach's use of this expedient as a last resort (Fig. 134). The slurs and a trilled turns preclude any other reasonable options. In Sonata V, mvt. I, he does not use finger substitution for the chain of suspensions in mm. 17-18, resembling the example given in his *Essay* (Fig. 135).¹⁶⁴ Quickly shifting finger 5 is apparently sufficient for the *Allegro di molto* tempo of both this passage and the passage in mm. 13-15 of Sonata VI, mvt. I, in which the LH must execute both a walking bass line and an inner syncopated voice (Fig. 136). The C-minor arpeggio found in the opening of the Fantasia at the end of this sonata includes a finger substitution to facilitate overlapping of tones. Measures 22-23 of Sonata II, mvt. III contain a special instance of 5 – 2 fingering in the RH that Bach references in his *Essay* (Fig. 137).¹⁶⁵ Because of the fast tempo and sudden dynamic change, Bach specifically recommends a quick lateral shift instead of finger substitution, aided by a slight turn of the hand to the right. In Sonata III, mvt. I, Bach avoids substitution by repeating the E-sharp in mm. 54-55 with a different finger (Fig. 138).

Figure 133. C. P. E. Bach, Sonata III, mvt. I, mm. 10-11.¹⁶⁶



¹⁶⁴ C. P. E. Bach, *Essay*, 70.

¹⁶⁵ *Ibid.*, 75.

¹⁶⁶ *Ibid.*, 10.

Figure 134. C. P. E. Bach, Sonata II, mvt. III, mm. 11-12.¹⁶⁷



Figure 135. C. P. E. Bach, Sonata V, mvt. I, mm. 17-18¹⁶⁸



Figure 136. C. P. E. Bach, Sonata VI, mvt. I, mm. 13-15.¹⁶⁹



Figure 137. C. P. E. Bach, Sonata II, mvt. III, mm. 22-23.¹⁷⁰



¹⁶⁷ Ibid., 8.

¹⁶⁸ Ibid., 21-22.

¹⁶⁹ Ibid., 28.

¹⁷⁰ Ibid., 9.

Figure 138. C. P. E. Bach, Sonata III, mvt. I, mm. 54-55.¹⁷¹



Bach makes ample use of early fingering techniques such as crossing finger 3 over finger 4 and crossing finger 2 over the thumb in certain scalar passages involving few or no accidentals. These range from full-fledged scales, such as the LH D-major scale in m. 9 of Sonata IV, mvt. I and the RH F-major scale in m. 33 of Sonata V, mvt. III, to segmented runs, such as the RH run in m. 12 in Sonata II mvt. I (Figures 139-141). In Sonata IV, mvt. I, the rapid oscillation in m. 16 of finger 2 crossing back and forth over the thumb in the LH indicates the substantial degree to which the use of 2 – 1 crossing was cultivated in Bach's training, possibly as a specific technical exercise (Fig. 142). In Sonata I, mvt. III, single incidents of early fingering occur within a rising chromatic line, as seen in mm. 10-11 (Fig. 143).

Figure 139. C. P. E. Bach, Sonata IV, mvt. I, m. 9.¹⁷²



¹⁷¹ Ibid., 11.

¹⁷² Ibid., 15.

Figure 140. C. P. E. Bach, Sonata V, mvt. III, m. 33.¹⁷³



Figure 141. C. P. E. Bach, Sonata II, mvt. I, m. 12.¹⁷⁴



Figure 142. C. P. E. Bach, Sonata IV, mvt. I, m. 16.¹⁷⁵



Figure 143. C. P. E. Bach, Sonata I, mvt. III, m. 10-12.¹⁷⁶



¹⁷³ Ibid., 25.

¹⁷⁴ Ibid., 6.

¹⁷⁵ Ibid., 16.

¹⁷⁶ Ibid., 5.

Measure 24 of Sonata IV, mvt. I includes an example of a scale fingering that Bach adjusts based on the context (Fig. 144). The RH does not fit any standard scale fingering pattern, but the solution allows finger 1 to end up on the terminating E-sharp, and using 1 – 3 – 4 instead of 1 – 2 – 3 starting from the B in the middle of the scale allows easier execution of the change in melodic direction. Likewise, in m. 23 of mvt. II, he delays the turning of the thumb in the LH descending D-major scale, allowing finger 4 to land on the low D in order to account for the subsequent figuration (Fig. 145).



Figure 145. C. P. E. Bach, Sonata IV, mvt. II, m. 23.¹⁷⁸



The numerous parallel thirds and sixths in Sonata IV, mvt. II follow Bach's fingering principles for these intervals as described in his *Essay*. The resultant fingering

¹⁷⁸ Ibid., 18.

patterns imply that the touch for block intervals set to dotted rhythms in a *Largo* *maestoso* context is one of slight articulation. For example, use of 5-1 to 5-2 on the sixths in m. 1 is easily executed with the normal touch described by Bach: not too connected, but not too detached (Fig. 146). Measure 8 of the *Largo* section in Sonata VI, mvt. III contains an instance of three parallel thirds moving by step in the LH, fingered 1-4, 2-4, and 1-3 (Fig. 147). Bach could have used 3-5 for the first third. Perhaps he preferred reducing the motion of the hand shift between the F on beat one and the following third, although in a slow tempo, this is not difficult to execute.

Figure 146. C. P. E. Bach, Sonata IV, mvt. II, m. 1.¹⁷⁹



Figure 147. C. P. E. Bach, Sonata VI, mvt. III, m. 8 of *Largo* Section.¹⁸⁰



¹⁷⁹ Ibid., 17.

¹⁸⁰ Ibid., 34.

Some fingerings in the *Probestücke* reveal exceptional solutions. Measure 31 of Sonata II, mvt. III uses the thumb on a black key in RH passagework not involving large intervallic leaps (Fig. 148). However, the hand remains in an “up” position in order to play B-flats and F-sharps in addition to the E-flat. Furthermore, the *Presto* tempo marking probably deterred Bach from a fingering solution that involved stretches and thumb turns. The RH scale fingerings in mm. 17 and 35 in the same movement are at odds with Bach’s principle of placing the thumb directly before black keys in descending scales (Fig. 149). According to Bach’s guidelines in his *Essay*, one might also execute these scales by crossing finger 4 over the thumb to the B-flat in m. 17 and to the F-sharp in m. 35. The latter example uses the harmonic form of the minor scale. He does not give fingering recommendations for harmonic minor scales in the *Essay*, and perhaps he wished to avoid the stretch between fingers 4 and 3 between the F-sharp and the E-flat. Regardless of the alternatives, Bach’s choice of fingering is viable in both examples, implying that he is not rigidly bound to any single way of fingering scales.

Figure 148. C. P. E. Bach, Sonata II, mvt. III, m. 31.¹⁸¹



¹⁸¹ Ibid., 9.

Figure 149. C. P. E. Bach, Sonata II, mvt. III, mm. 17-18 and mm. 35-36.¹⁸²



The fingering of the E-flat major first inversion arpeggio in the RH at m. 24 of Sonata II mvt. III is also influenced by the rapid tempo (Fig. 150). The block version of this chord would usually be fingered using finger 4 on the E-flat. However, the fast tempo makes it difficult to play the F in the last beat of the measure with finger 4 if the same finger is used on the previous E-flat. Using 3 in this instance is also a symmetrical application of Bach's recommendation in the *Essay* to avoid the use of finger 4 in descending arpeggios in the LH due to the weakness of the fourth finger in this context. Moreover, finger 3 is ideally placed to play the stepwise tones following the arpeggio. A similar context occurs in mm. 1-2 of Sonata V, mvt. I (Fig. 151). The first inversion E-flat arpeggio in m. 1 includes an incomplete lower neighbor tone D, and the A-flat arpeggio in m. 2 is followed by stepwise motion using finger 4. The use of finger 3 rather than finger 4 on these arpeggios makes the following stepwise motions easier to execute.

¹⁸² Ibid.

Figure 150. C. P. E. Bach, Sonata II, mvt. III, mm. 24-25.¹⁸³



Figure 151. C. P. E. Bach, Sonata V, mvt. I, mm. 1-2.¹⁸⁴



Although Bach avoids the thumb on black keys in most situations, he employs it in passages based on black-key pentascales. For example, in m. 10 in Sonata VI, mvt. I, the A-flat pentascale provides the framework for the fingering, resulting in the use of the thumb and finger 5 on black keys (Fig. 152).¹⁸⁵ In contrast, mm. 3-4 and m. 12 of Sonata V, mvt. II demonstrate how the repeated use of 5-2 for parallel sixths and 4-2 for parallel thirds is useful for avoiding the thumb when such passages occur in the context of many flats (Fig. 153). Also, given that the slow tempo will allow quasi-legato connections in these passages, this fingering reveals that not all lyrical gestures in C. P. E. Bach's music require physical connection of all the tones.

¹⁸³ Ibid.

¹⁸⁴ Ibid., 21.

¹⁸⁵ Similar passagework in this movement also requires supple use of fingers 4 and 5 to play oscillating figuration on black keys, as seen in m. 25.

Figure 152. C. P. E. Bach, Sonata VI, mvt. I, m. 10.¹⁸⁶



Figure 153. C. P. E. Bach, Sonata V, mvt. II, mm. 3-4 and m. 12.¹⁸⁷



The special techniques of hand-crossing and *Bebung* make several appearances in the *Probestücke*. Sonata VI, mvt. I shows Bach's use of fingers 2 and 4 for playing broken thirds when crossing hands, maintaining the same fingering used when broken thirds appear in uncrossed hand positions within this movement (Fig. 154). *Bebung* is an expressive effect that may only be produced on the clavichord, by rapidly varying the amount of finger pressure on a depressed key. Because the tangents of a clavichord

¹⁸⁶ Ibid., 28.

¹⁸⁷ Ibid., 23-24.

Each movement of Carl Philipp Emanuel Bach's *Probestücke* demonstrates the practical application of the fingering principles espoused in his *Essay*. Several of Bach's statements on fingering are qualified or broadened in conception within the *Probestücke* when applied to the wide variety of figuration that arises in free composition. In places where fingering choices deviate from the patterns established in the *Essay*, one can generally deduce the advantage of the given fingerings from the context of surrounding figuration and from the tempo. Although the *Probestücke* are not easy pieces for a student to tackle, careful study and practice of their copious fingering can help teachers and students to develop fingering instincts congruent with Bach's principles and apply them to contemporaneous keyboard music. As an example of such application, in Appendix D, I have proposed fingering for excerpts of Sonata I from *Six Sonatas with Varied Reprises for Keyboard*, Wq. 50. I selected this sonata because it is an example of a piece by C. P. E. Bach appropriate for intermediate-level piano students that consists of interesting and challenging, yet accessible, musical content. Moreover, because many of the fingerings in these excerpts are representative of fingering patterns that can be successfully applied to other sections of the sonata, this piece provides several opportunities for students to practice, reinforce, and reapply these fingering concepts.

CHAPTER V

OPPORTUNITIES IN THE J.C. BACH/RICCI *METHOD* FOR INNOVATIVE
PRESENTATION OF FINGERING PRINCIPLES TO BEGINNING STUDENTS

Francesco Pasquale Ricci (1732–1817) served as Maestro di Capella at the cathedral in Como, Italy during the second half of the eighteenth century.¹⁹⁰ Between 1768 and 1777, Ricci was granted leave from his church position to travel abroad, performing concerts in Paris, London, and The Hague, where many of his compositions were published. In addition to composing several symphonic, chamber, and vocal works, in 1779 he published *Recueil de connaissances elementaires pour le Forte-Piano* or *Collection of Elementary Studies for the Forte-Piano*, an introductory treatise designed for progressive study by keyboard students in the early grades, for the Naples Conservatory.¹⁹¹ Alphonse Leduc republished this work in Paris in 1786, under the title *Methode ou Recueil de connaissances elementaires pour le Forte-Piano ou Clavecin* (adding the words *Method* and *or Harpsichord*), listing the composers as Johann Christian Bach (1735–1782) and Ricci.¹⁹² Beatrice Erdely's 1987 translated edition of the Leduc publication is available in the United States.¹⁹³

¹⁹⁰ Biographical information on Ricci is sourced from Ronald R. Kidd, "Ricci, Francesco Pasquale," in *Grove Music Online, Oxford Music Online*, Oxford University Press, <<http://www.oxfordmusiconline.com/subscriber/article/grove/music/23361>> (accessed October 1, 2013).

¹⁹¹ Ernest Warburton, *The Collected Works of J. C. Bach, Thematic Catalogue*, (New York and London: Garland Pub., Inc., 1999), 48:453, 605.

¹⁹² Sandra Soderlund, *How Did They Play?*

¹⁹³ Johann Christian Bach and Francesco Pasquale Ricci, *Methode ou Recueil de connaissances elementaires pour le Forte-Piano ou Clavecin*, ed. by Beatrice Erdely. 4 vols., (London: Novello & Co. Ltd., 1987).

The lack of direct evidence of Bach's involvement in the composition of these pieces leaves uncertainty as to Bach's contributions.¹⁹⁴ The cosmopolitan J. C. Bach lived in Milan from 1755–1762, serving as an organist of the Milan Cathedral starting in 1760.¹⁹⁵ In 1762, the popularity of his operas catalyzed his move to London. Although Bach died a few years before the Leduc publication, Ricci could have discussed the idea of the *Method* with him during his travels to London, or perhaps they met earlier in Milan, where their mutual patron Count Agostino Litta resided. Other evidence weakens the credibility of the Leduc edition's listing of Bach's authorship. Ricci's 1779 publication includes an accompanying violin part (presumably for teachers to accompany students) which does not appear in the Leduc edition.¹⁹⁶ Moreover, C. P. E. Bach's *Probestücke* are appended to the Leduc edition without credit.¹⁹⁷ Perhaps Ricci believed these were composed by J. C. Bach. Or perhaps Leduc simply added J. C. Bach's name to the edition to help increase sales.

Notwithstanding J. C. Bach's uncertain involvement in their composition, the first eleven pieces of this collection demonstrate clever pedagogical sequencing of fundamental musical concepts, facilitating efficient teaching of basic fingering principles appropriate for beginning piano students. Although the *Method* is composed in the *style galant*, the nature of its presentation of material provides opportunities for the study of fundamental fingering principles and aspects of touch applicable to a variety of style

¹⁹⁴ Ibid.

¹⁹⁵ Biographical information on J. C. Bach is sourced from Christoph Wolf et al., "Bach," in *Grove Music Online, Oxford Music Online*, Oxford University Press, <<http://www.oxfordmusiconline.com/subscriber/article/grove/music/40023pg15>> (accessed January 15, 2014).

¹⁹⁶ Warburton, *The Collected Works of J. C. Bach*, 48:453, 605.

¹⁹⁷ Soderlund, *How Did They Play?*, 183.

periods, laying the foundation for a technique equipped to interpret eighteenth-century music as well as music written in other idioms.

The treatise consists of two parts, the first of which explains the fundamental concepts of music theory (primarily scale construction), musical notation, expression, determinants of tempo, and compositional forms and procedures.¹⁹⁸ Presented in the format of encyclopedia and dictionary entries, the terms in the treatise are not designed to be introduced in the order presented but rather to serve as a reference resource. The second part of the work consists of 100 relatively short pieces arranged in the order of generally increasing difficulty and sophistication. The first eleven pieces are essentially exercises accessible to beginners. Starting with No. 12, they adopt the form of actual pieces that increase in complexity. Because the pieces lack suggestions for instruction and represent a significant range of progress, this work is not so much a “method” in the sense of today’s piano methods as it is a collection of graded pieces that serve as templates for instruction.

This chapter examines the pedagogical benefits of incorporating Nos. 1-11 into the curriculum of a beginner’s piano study, discusses the expansion of these ideas in a small selection of the subsequent pieces, and compares these pieces with the presentation of fingering concepts in commonly used modern piano method books. Through the immediate introduction of figuration requiring the hand to shift laterally across the keyboard, the rapid and graded exposure to intervals, rhythmic contexts, and elements of musical style, and the use of diatonic sequencing, this treatise presents numerous

¹⁹⁸ J.C. Bach and F.P. Ricci, *Methode*, 1:i.

fingering patterns at a much earlier stage of a student's study than is common in modern piano methods. Moreover, aspects of both modern and early systems of fingering can easily be introduced through these pieces as a supplement to a student's regular course of study, exposing them to concepts that aid in the development of note-reading skills and technical sensitivity to articulation and style.¹⁹⁹

Description of Pitch and Rhythmic Content in Bach-Ricci, Nos. 1 – 11

The first eleven pieces of the *Méthode* are in C major, and all but No. 6 use exclusively white keys. Nos. 1-6 are written on a single staff, implying that each piece can be played with either hand. Starting with No. 7, the music appears on two staves, with stem direction clarifying the assignment of notes to each hand. After presenting a chart showing the placement of each note of a five-octave keyboard on the grand staff, Ricci immediately presents complete one-octave C-major scales in each hand, ascending and descending in whole notes, constituting Nos. 1 and 2. Today's standard C-major fingering is given, along with solfège syllables and letter names. In No. 3, stepwise motion is replaced by continuous broken thirds in quarter notes, also ascending and descending the C-major scale. No. 4 is a variation of No. 3 written in eighth notes beamed in groups of three, in which each third has been filled in with a passing tone. No.

¹⁹⁹ From this point forward, individual pieces in this collection will be referred to by the number of their ordering in Johann Christian Bach and Francesco Pasquale Ricci, *Méthode ou Recueil de connaissances élémentaires pour le Forte-Piano ou Clavecin*, ed. by Beatrice Erdely. (London: Novello & Co. Ltd., 1987). The editor has made slight adjustments to the ordering of the original pieces at the point at which one volume ends and another begins, e. g., between pieces Nos. 24-25, for the purpose of ending each volume with an appropriate work, and "to reflect more accurately the graduated increase in technical difficulty that was one of the intentions of the Bach-Ricci Collection."

5 presents the same C-major scale using half notes and quarter notes, with the addition of a parallel line at the interval of a third above it. No. 6 fills the one-octave scale with chromatic tones using a variety of rhythmic values, including the rhythm of a dotted quarter note followed by an eighth note.

No. 7 divides the C-major scale into two four-note ascending tetrachords split between the hands in eighth notes, and diatonically sequences this pattern by ascending step for a complete octave. No. 8 is based on a RH descending C-major pentascale, in which a quarter note followed by four sixteenth notes is diatonically sequenced by descending step for a complete octave. This line is harmonized in the LH by a descending C-major scale at the interval of a tenth below. Nos. 9 and 10 consist of two sections each. Both first sections are based on descending sequences along the C-major scale. No. 9 consists of two groups of three descending steps in triplet eighth notes, divided between the hands and separated by the interval of a third. No. 10 is a variation of No. 9 that presents the same pitch material as *suspirans* figures. In each hand, an upbeat neighbor-tone figure of three sixteenth notes serves as an anacrusis to a quarter note a third lower. A composite rhythm of continuous sixteenth notes is achieved by alternating four-note groups between the LH and RH. The second portions of Nos. 9 and 10 are very similar to each other, consisting of repeated quarter notes for three measures followed by an ascending and descending sixteenth-note scale, played by the LH and RH, respectively. The first half of No. 11 consists of a repeated eighth-note tonic pedal tone C in the LH followed by three stepwise ascending eighth notes in the RH. The LH remains on the pedal tone while the RH is sequenced on various steps of the scale. The

hands trade patterns in the second half, which is based on a dominant pedal note G in the RH and ascending steps in the LH.

Sequencing and Presentation of Musical Concepts in Bach-Ricci, Nos. 1-11

From the beginning, the *Method* does not lock the hand into a narrow tessitura of five tones. Students are introduced to thumb turns and finger crossings in the simple context of an unmeasured scale, and each of following eleven pieces requires the hand to gradually shift across the distance of at least one octave. The use of only white keys allows the introduction and development of various fingering combinations within a given piece. Stepwise pieces can be executed using different sets of consecutive fingers. For example, No. 4 can be practiced with repeated groups of 1 – 2 – 3, 2 – 3 – 4, or 3 – 4 – 5. This diversified fingering is excellent for teaching the articulation of strong and weak tones, and it works equally well for teaching legato touch. Alternatively, using fingerings such as 1 – 2 – 3 – 2 – 3 – 4 can allow students organize the tones into larger groups of notes. Flexibility of consecutive fingering is similarly applicable to No. 7, which lends itself to two fingering groups: 1 – 2 – 3 – 4 and 2 – 3 – 4 – 5. The melodic motifs that are used to build Nos. 9 and 10 can likewise be fingered in three ways in each hand, starting with finger 3, 4, or 5 in the RH, and finger 1, 2, or 3 in the LH. A student who experiences this approach in the early stages of study learns to associate a given pitch collection and metrical position with potentially multiple fingering possibilities.

Early fingering techniques can be introduced using many of the first eleven pieces. While Ricci was not thinking of early fingering techniques when he composed

these pieces, nothing is lost by using them as templates for the study of earlier fingering practices. Any of C. P. E. Bach's alternative fingering patterns for the C-major scale can be introduced in Nos. 1 and 2, and later applied to the scales in Nos. 9 and 10. According to C. P. E. Bach's *Essay*, all of the thirds throughout Nos. 3 and 5 can be fingered using 2 – 4. Likewise, No. 7 can be fingered with repeated pairs of 2 – 1 in the LH and 3 – 4 in the RH.

Each of several intervallic and rhythmic concepts is encountered in a quick graded succession as one moves from one piece to the next. New intervallic concepts are linked with new rhythmic concepts within a single piece. For example, No. 4 simultaneously introduces the diminution of note values, the reorganization of tones into groups of three, and the concept of passing tones in relation to No. 3. No. 8 introduces sixteenth notes after the presentation in No. 7 of eighth notes in groups of four, but additionally, the intervallic range of each gesture is expanded from a fourth in No. 7 to a fifth in No. 8. The melodic direction of the figuration is inverted, and the RH does not rest between sequences as it did in No. 7. When a previously learned concept is revisited, the student must apply it in a more challenging context. In No. 9, the return to triplet eighth notes occurs in figuration divided between the hands in the manner of No. 7, but No. 9 also requires the student to execute alternating patterns with a slightly greater distance between the hands.

Ricci overlays many of these pieces with implications of articulation and style, which can be taught in conjunction with fingering and touch. For instance, the concept of creating an articulation with a lateral shift of the hand can be reinforced using No. 8, in

which an articulation can be created between the sixteenth-note groups and the following quarter notes when fingered with 1 and 5. Ricci sometimes indicates tempo or style with words, starting with No. 5's directive to play *Tempo giusto*. The *Largo* and *Adagio* indications which differentiate the otherwise nearly identical material initiating the second half of Nos. 9 and 10 can be used as a springboard for discussion of the relative length and inflection of quarter notes in these tempos as distinct from the *Allegro* quarter notes that begin No. 10.

The use of sequences has many pedagogical benefits. Although significant changes appear from piece to piece, each individual piece has an inherent simplicity deriving from the use of sequences. This allows students to experience the simultaneous presentation of multiple new concepts in the context of repetition on different scale degrees. Sequences also allow fingering concepts to be taught by rote. For instance, beginning students who have not yet progressed to sixteenth-note notation can still experience the rhythmic impulses and articulation of the figuration in No. 8. Further, sequences promote coordination between the hands. Thus, the LH in No. 7 must be able to shift one step higher accurately while the RH is playing. Careful listening is required to match the articulations of figuration mirrored between the hands.

A few patterns are somewhat more complicated. No. 6 is somewhat of an outlier among the first eleven pieces. It includes multiple rhythmic concepts and represents an early introduction to the chromatic scale. Ricci omits B-flat in the ascent and F-sharp in the descent, which are the locations of the scale's tendency tones, and a student must adjust fingering choices accordingly. The repetition in mm. 5-8 of the rhythmic pattern

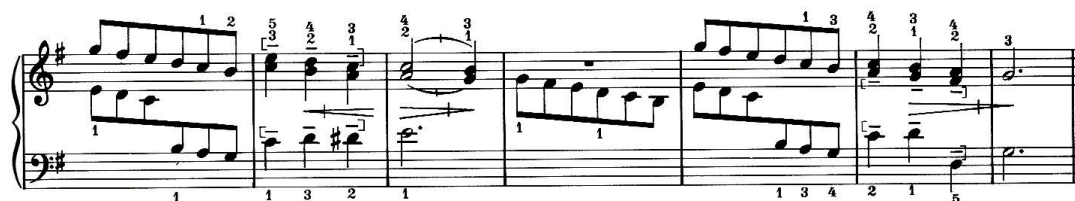
from mm. 1-4 allows the concept of dotted rhythms to be taught by rote before explaining their notation. The end of No. 10 contains an instance of hand crossing that does not appear in the analogous spot in No. 9. In No. 11, sequential figuration is repeated for the first time on scale degrees larger than a step apart. The sequential pattern is slightly more complex, mixing steps with skips.

Starting with No. 12, the musical material takes on the character of self-contained pieces of music rather than exercises. Periodic phrase structure, differentiation of melody and accompaniment figuration, and the inclusion of rhythmic and figural contrasts are characteristic of most pieces throughout the rest of the collection. At this point in the *Method*, in which the *style galant* is clearly reflected, the anachronistic application of early fingering techniques is largely without warrant. The difficulty of the music also advances beyond the beginner level. Nevertheless, a few fingering concepts pertinent to the earliest grades of study can be drawn from the next few pieces in the *Method*.

No. 14 consists of simple scalar patterns in the key of G major, but the student must adjust fingering patterns for different contexts. In m. 2, rather than limiting the melodic line to a pentascale, Ricci extends the range by one note in the RH descending line, requiring finger 2 to cross over to an F-sharp. In mm. 6-12, the turning of finger 2 over the thumb in the first descending RH G-major scale allows the following parallel thirds on C and E to be played with fingers 5 and 3. Turning finger 3 over the thumb in the second descending G-major scale is necessary to account for the lower placement of the parallel thirds that follow (Fig. 156). Nos. 13 and 14 can be used to introduce the

concept of the two-note slur in the context of doubled notes, which requires the shift of fingers on repeated notes to allow fingers 4 and 2 to play the first notes of this gesture.

Figure 156. J.C. Bach and F. Ricci, *Study No. 14*, mm. 6-12.²⁰⁰



Three piano method book curricula widely used in the United States today for beginning piano students in the age range of approximately seven to eleven years old are *Bastien Piano Basics*, *Alfred's Basic Piano Library*, and *Faber Piano Adventures*. Each of these methods has excellent pedagogical features but each to varying degrees presents in their beginning technique books exercises and pieces that lock a student into limited fingering patterns. In the remainder of this chapter, I will discuss representative examples of this problematic tendency in each of these methods, and I will suggest alternative approaches based on the pedagogical concepts inherent in the first eleven pieces of the Bach-Ricci *Method*.

Examples of Restrictive Fingering Concepts in Modern Method Books for Beginners

The exercise “Tag, You’re It!” from *Bastien Piano Basics, Technic Book, Level 1* demonstrates Bastien’s utilization of a five-finger position based on tonic in order to

²⁰⁰ Johann Christian Bach and Francesco Pasquale Ricci, *Methode ou Recueil de connaissances elementaires pour le Forte-Piano ou Clavecin*, ed. by Beatrice Erdely. (London: Novello & Co. Ltd., 1987), 1:7.

focus on a small number of clearly-defined skills (Fig. 157), namely the execution of broken thirds and stepwise motion. There is no harm in this pedagogical technique when used for a few pieces. However, this piece exemplifies typical fingering premises for the majority of exercises in this book, and in the associated curricula at this level. Although both hands get to participate equally in the rhythmic and melodic motifs, each finger is always associated with the same key. This rigidity, perpetuated for several lessons, is restrictive, unnecessarily delaying exposure to even a few instances of fingering on different scale degrees and of figuration moving outside of the range of a fifth.

The inclusion of an F-sharp in the RH, requiring the second finger to turn over the thumb and back at some point in the piece, would enhance the positive usefulness of this piece. Alternatively, the melody in the RH mm. 3-4 could be altered in various ways to require the hand to shift to a new position, such as A – F-sharp – E – F-sharp – G – A – B. Likewise, mm. 7-8 in the LH could be altered to A – F-sharp – A – F-sharp – G – B – G. Since the C position has already been introduced at this point in the method, the staff positions of D, E, and F are already familiar. Moreover, the concepts Bastien wishes to reinforce in this piece would be retained with such alterations, and the addition of a finger numbers at mm. 3 and 7 would clarify the hand position shifts.

Figure 157. *Bastien Piano Basics, Technic Book, Level 1*, “Tag, You’re It!”²⁰¹



By the end of the technic book, Bastien does move the hands to different positions within the same piece. This is illustrated by the technic exercise “Lift Off!” (Fig. 158). Similarly, the piece “Angry Alligator” requires the hand to move from C-major pentascales to F-major and G-major pentascales (Fig. 159). However, in each case, each finger is still associated with a particular degree of the scale. Measures 4-6 of “Angry Alligator” could be rewritten using this note order, placing finger 2 on the first pitch: A – G – A – B-flat – C – D – C – B-flat – A. This preserves the rhythmic pattern, stepwise motion, and harmonic implications of the first version, but breaks the association of finger 1 with the tonic scale degree. In “Lift Off,” m. 2 could be diatonically transposed one step higher, and the first pitch of m. 3 could be lowered one step. This and similar additional modifications allow the fingers to play different scale degrees and introduce the interval of a sixth while maintaining Bastien’s desire to drill the shifting of positions

²⁰¹ James Bastien, *Bastien Piano Basics: Technique Level 1* (San Diego: Neil A. Kjos Music Co., 1986), 19. © Copyright 1986 Neil A. Kjos Music Co. Reprinted by permission.

across wide intervals. Also, musical interest is improved with the implication of greater harmonic variety.

Figure 158. *Bastien Piano Basics, Technic Book, Level 1*, “Lift Off.”²⁰²



Figure 159. *Bastien Piano Basics, Technic Book, Level 1*, “Angry Alligator,” mm. 1-9²⁰³



²⁰² Ibid, 28. © Copyright 1986 Neil A. Kjos Music Co. Reprinted by permission.

²⁰³ Ibid, 26. © Copyright 1986 Neil A. Kjos Music Co. Reprinted by permission.

Similar pentascale-based exercises are seen in *Alfred's Basic Piano Library, Technic Book*, Levels 1A and 1B. The Alfred series is heavily oriented towards figuration based on block intervals found in a pentascale. However, the intervals predictably contain the tonic or dominant pitches, limiting musical variety. Furthermore, *Alfred* tends to associate particular fingers with these intervals. For example, in Figure 160, seconds are associated only with Fingers 1 and 2, thirds are associated with fingers 1 and 3, and so forth. There are no thirds built on the second scale degree in this piece or many others based on the pentascales in this book. Likewise, there are no seconds built on the second or third scale degrees.

Figure 160. *Alfred's Basic Piano Library, Technic Book Level 1A*, "Harmonic Intervals in C Position"²⁰⁴



²⁰⁴ Willard A. Palmer, Morton Manus, and Amanda Vick Lethco, *Alfred's Basic Piano Library: Technic Book Level 1A* (Van Nuys, CA: Alfred Publishing Co., Inc., 1995), 20. © Copyright 1995 Alfred Publishing Co. Reprinted by permission.

This rigidity of interval organization influences the vast majority of the pieces in this series, even when the LH is placed in a different pentascale from the RH, as demonstrated in Figure 161. Fortunately in this example, *Alfred* engages a different combination of fingers to play the seconds and thirds (4-3 and 4-2). However, the RH could be improved by replacing beat 3 of m. 3 with E – G using fingers 4 and 2, and beats 3 and 4 of m. 4 with F – A and F – B. This increases musical value and also exposes the student to the interval of a tritone. Since the LH is sustaining a tone in these instances, such alterations do not create unreasonable challenges.

Figure 161. *Alfred's Basic Piano Library, Technic Book Level 1B*, "Singing Bass"²⁰⁵



Faber Piano Adventures capitalizes on sequential patterns more often than the other methods. This can be observed from the very beginning of the *Technique and Artistry Book, Level 1* (Fig. 162). Simple two-note patterns are repeated using different fingering combinations. This theme is continued later in the book with larger intervals, as seen in Figure 163. Figure 162 is similar to Griepenkerl's first exercise, except that it is used to teach legato touch. Indeed, unless a piece is specifically designed to drill the basic concept of a staccato touch, the majority of technical exercises in all three beginning technique books imply that tones that are not repeated are played legato by default. Teachers should adapt many of these exercises to prevent students from developing this assumption by exploring a wide variety of touches.

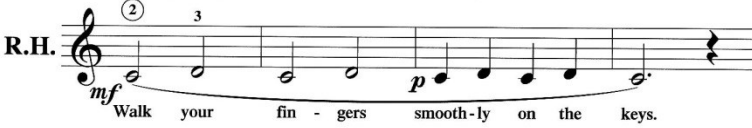
²⁰⁵ Willard A. Palmer, Morton Manus, and Amanda Vick Lethco, *Alfred's Basic Piano Library: Technic Book Level 1B* (Van Nuys, CA: Alfred Publishing Co., Inc., 1995), 16. © Copyright 1995 Alfred Publishing Co. Reprinted by permission.

Figure 162. *Faber Piano Adventures, Technique and Artistry Book, Level 1*, “Sticky Fingers”²⁰⁶

Butterscotch Fingers (Remember to play on the *side tip* of the thumb.)

R.H. 

Cotton Candy Fingers

R.H. 

Caramel Fingers

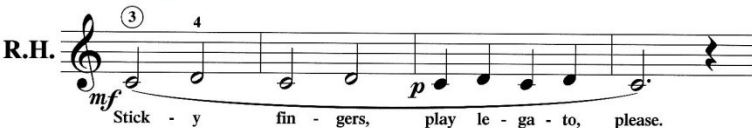
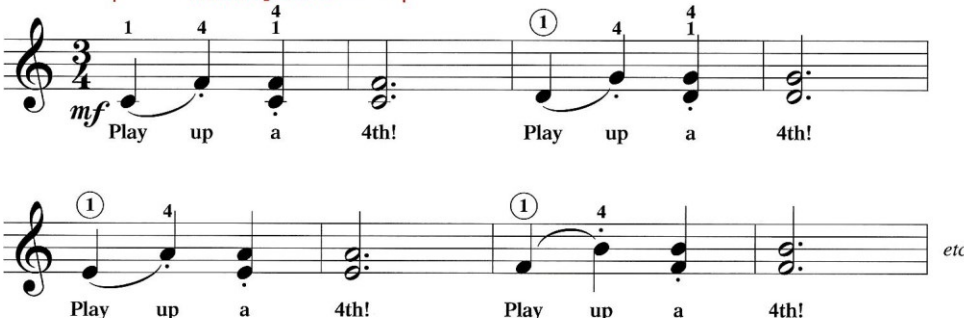
R.H. 

Figure 163. *Faber Piano Adventures, Technique and Artistry Book, Level 1*, “This 1 is 4 You”²⁰⁷

— musical pattern —



Continue this pattern beginning on G, A, B, and C.

The RH melodic pattern in “Ocean, Ocean” is an example of a piece that makes good use of sequential repetition and thus avoids associating each finger with a given pitch or scale degree (Fig. 164). Continuing in the spirit of the Ricci exercises, even

²⁰⁶ Nancy Faber and Randall Faber, *Piano Adventures: Technique and Artistry Book Level 1* (Ann Arbor: Dovetree Productions, 2011), 4. © Copyright 2011 Dovetree Productions. Reprinted by permission.

²⁰⁷ Ibid, 17.

greater benefit could be obtained from the study of this piece by including similar figuration in the LH in alternation with the RH.

Figure 164. *Faber Piano Adventures, Technique and Artistry Book, Level 1*, “Ocean, Ocean,” mm.1-10²⁰⁸

The musical score for "Ocean, Ocean" is presented in three systems. The first system (mm. 1-4) features a melody in the right hand starting on G4, with lyrics "The o - cean's big, the o - cean's wide, I can - not see the". The left hand has whole rests. The second system (mm. 5-8) continues the melody with lyrics "oth - er side. But I can hear the might - y roar of". The left hand has whole rests. The third system (mm. 9-10) ends with the lyrics "waves up - on the shore. Crash, crash, boom!". The left hand has whole rests. Fingerings are indicated by numbers 1-5. Dynamics include *mp*, *mf*, and *f*. A crescendo hairpin is marked "growing louder".

Many elementary piano methods today present fingering heavily based on pentascales in a manner that largely restricts the independence of finger numbers from specific keys or the independence of specific scale degrees of a given hand position. Moreover, the musical content in most of the pieces in these beginning lesson books does not lend itself to exploration of articulation or of preparation for changes in figuration via hand position shifts. Perhaps the authors of these method books restrict fingering to

²⁰⁸ Ibid., 38.

pentascale positions in order to reduce the number of new musical elements a student must process while learning the rudiments. However, other musical elements such as dynamic symbols, rhythms, and various symbols of musical notation tend to be introduced systematically in small increments. This suggests that these authors assess greater difficulty to variances in fingering and hand position in comparison to other musical concepts presented at this stage. Yet, if introduced judiciously, there is no reason to delay for such a disproportionately long length of time the introduction of figuration that utilizes freer placement of the hand on the keyboard.

As a necessary corrective for this deficiency of modern methods, teachers are strongly encouraged to incorporate the pedagogical concepts inherent in the beginning exercises in J.C. Bach/Ricci *Method*. By facilitating the early and rapid introduction of fingering concepts extending beyond pentascale-based fingering, often via the sequencing of musical material, these pieces provide templates for teachers to supplement a beginning piano student's curriculum with innovative exercises that increases awareness of the physical space of the keyboard, as well as the concept of articulation. Just as intermediate students studying and practicing the fingering principles of Johann Sebastian Bach and Carl Philipp Emanuel Bach are better equipped to bring a creative approach to the study of eighteenth-century keyboard literature, beginning students exposed to concepts in the J.C. Bach-Ricci series will attain an early awareness of multiple options for useful fingering, preparing them to develop a technique sensitive to the wide range of musical expression found in piano literature from all time periods.

BIBLIOGRAPHY

- Bach, Carl Philipp Emanuel. *Essay on the True Art of Playing Keyboard Instruments*. Translated and edited by William J. Mitchell. New York: W.W. Norton & Co., 1949.
- _____. *Probestücke, Leichte, and Damen Sonatas*. Edited by David Schulenberg. Vol. 3 of *Carl Philipp Emanuel Bach: The Complete Works: Keyboard Music*, edited by Darell M. Berg. Los Altos, CA: Packard Humanities Institute, 2005.
- _____. *Sechs Sonaten mit veränderten Reprisen für Clavier*. Edited by Etienne Darbellay. Winterthur/Schweiz: Amadeus Verlag, 1976.
- Bach, Johann Christian, and Francesco Pasquale Ricci. *Methode ou Recueil de connaissances elementaires pour le Forte-Piano ou Clavecin*. Edited by Beatrice Erdely. 4 vols. London: Novello & Co. Ltd., 1987.
- Bach, Johann Sebastian. *Eighteen Short Preludes for the Keyboard*. Edited by Willard A. Palmer. Van Nuys, CA: Alfred Publishing Company, Inc., 1998.
- Bastien, James. *Bastien Piano Basics: Technique Level 1*. San Diego: Neil A. Kjos Music Co., 1986.
- Buchner, Hans. *Sämtliche Orgelwerk*. Vol. 54 of *Das Erbe deutscher Musik*. Frankfurt: H. Litolf's Verlag, 1974.
- David, Hans T., Arthur Mendel, and Christoph Wolff. *The New Bach Reader: A Life of Johann Sebastian Bach in Letters and Documents*. New York: W.W. Norton, 1998.
- Demeyere, Ewald. *Johann Sebastian Bach's Art of Fugue: Performance Practice Based on German Eighteenth Century Theory*. Leuven: Leuven UP, 2013.
- Faber, Nancy and Randall Faber. *Piano Adventures: Technique and Artistry Book Level 1*. Ann Arbor: Dovetree Productions, 2011.

- Faulkner, Quentin, trans. "Friedrich Conrad Griepenkerl's Preface to J. S. Bach's *Chromatic Fantasy and Fugue*." In *Bach and the Pedal Clavichord: An Organist's Guide*, by Joel Speerstra. Rochester: University of Rochester Press, 2004.
- Forkel, Johann Nikolaus. *Ueber Johann Sebastian Bachs Leben, Kunst und Kunstwerke*. Leipzig, 1802; fasc. ed., Frankfurt, 1950; English trans., London, 1820.
- Kidd, Ronald R. "Ricci, Francesco Pasquale." In *Grove Music Online*. Oxford Music Online. Oxford University Press.
<<http://www.oxfordmusiconline.com/subscriber/article/grove/music/23361>> (accessed October 1, 2013).
- Lister, Craig L. George. "Traditions of Keyboard Technique from 1650 to 1750." Ph. D. diss., University of North Carolina, 1979.
- Marshall, Robert L. "Johann Sebastian Bach." In *Eighteenth Century Keyboard Music*, edited by Robert L. Marshall, 68-123. New York: Routledge, 1994.
- Marx, Hans Joachim. "Buchner, Hans." In *Grove Music Online*. Oxford Music Online. Oxford University Press.
<<http://www.oxfordmusiconline.com/subscriber/article/grove/music/04236>> (accessed October 2, 2013).
- Neumann, Werner, and Hans-Joachim Schulze, eds. *Fremdschriftliche und gedruckte Dokumente zur Lebensgeschichte Johann Sebastian Bachs, 1685-1750*. Vol. 2 of *Bach-Dokumente*, edited under the auspices of the Bach-Archiv Leipzig as a supplement to the *Neue Bach-Ausgabe*. Leipzig and Kassel, 1963-72.
- Palmer, Willard A., Morton Manus, and Amanda Vick Lethco. *Alfred's Basic Piano Library: Technic Book Level 1A*. Van Nuys, CA: Alfred Publishing Co., Inc., 1995.
- _____. *Alfred's Basic Piano Library: Technic Book Level 1B*. Van Nuys, CA: Alfred Publishing Co., Inc., 1995.
- Quantz, Johann Joachim. *On Playing the Flute*. Translated by Edward R. Reilly. New York: Schirmer, 1966.
- Schulze, Hans-Joachim, ed. *Dokumente zum Nachwirken Johann Sebastian Bachs, 1750-1800*. Vol. 3 of *Bach-Dokumente*, edited under the auspices of the Bach-Archiv Leipzig as a supplement to the *Neue Bach-Ausgabe*. Leipzig and Kassel, 1963-72.

- Soderlund, Sandra. *How Did They Play? How Did They Teach? A History of Keyboard Technique*. Chapel Hill, NC: Hinshaw Music, Inc., 2006.
- _____. *Organ Technique: An Historical Approach*. 2nd ed. Chapel Hill, NC: Hinshaw Music, Inc., 1986.
- Spanyi, Miklos. "Johann Sebastian Bach's Clavichord Technique Described by Griepenkerl." *Clavichord International* 4, no. 2 (November 2000): 47-52.
- Speerstra, Joel. *Bach and the Pedal Clavichord: An Organist's Guide*. Rochester: University of Rochester Press, 2004.
- Sweelinck, Jan Pieterszoon. *Complete Keyboard Works*. Edited by Harald Vogel. Vol. 1. Wiesbaden: Edition Breitkopf, 2005.
- Stinson, Russel. "Vogler, Johann Caspar." In *Grove Music Online*. *Oxford Music Online*, <<http://www.oxfordmusiconline.com/subscriber/article/grove/music/29609>> (accessed September 1, 2013).
- Walker, Paul. "Fingering, Bach, and the Wegweiser." *Early Keyboard Studies Newsletter* 1, no. 3 (June 1985): 4.
- Warburton, Ernest. *The Collected Works of J. C. Bach, Thematic Catalogue*. Vol. 48, New York and London: Garland Pub., Inc., 1999.
- Wolff, Christoph et al. "Bach." *Grove Music Online*. *Oxford Music Online*. Oxford University Press. <<http://www.oxfordmusiconline.com/subscriber/article/grove/music/40023pg15>> (accessed January 15, 2014).

APPENDIX A

PRAEAMBULUM IN G MINOR BY J. S. BACH²⁰⁹

The musical score for the Praeludium in G minor by J.S. Bach, BWV 99, is presented in five systems. Each system contains two staves, a treble staff and a bass staff. The key signature is G minor (two flats) and the time signature is 3/4. The score includes various musical notations such as slurs, ties, repeat signs, and ornaments. Fingerings are indicated by numbers 1-5 above or below notes. Measure numbers 9, 17, 26, and 34 are marked at the beginning of the fourth, fifth, sixth, and seventh systems respectively.

²⁰⁹ Soderlund, *How Did They Play?*, 151. © Copyright 2006 by Hinshaw Music, Inc. Reprinted with permission.

APPENDIX B

*PRELUDE AND FUGGETTA IN C MAJOR, BWV 870A BY J. S. BACH*²¹⁰

Prelude

4

7

10

13

15

²¹⁰ Soderlund, *How Did They Play?*, 153-55. © Copyright 2006 by Hinshaw Music, Inc. Reprinted with permission.

Fugetta

The musical score for 'Fugetta' is written in C major and 2/4 time. It consists of five systems of two staves each. The treble clef staff contains the main melody, while the bass clef staff provides a simple harmonic accompaniment. The piece is characterized by its use of eighth and sixteenth notes, often beamed together in groups. Fingerings are indicated by numbers 1-5 above or below the notes. Measure numbers 1, 4, 7, 10, and 13 are marked at the beginning of their respective systems. The notation includes various musical symbols such as beams, slurs, and rests.

The musical score consists of six systems, each with a treble and bass staff. The key signature is one sharp (F#). The notation includes various musical symbols such as notes, rests, and fingerings, along with a key signature of one sharp (F#).

System 1 (Measures 16-18): Treble staff features a series of eighth and sixteenth notes with fingerings 2, 3, 1, 5, 2, 1, 5. Bass staff has a whole rest.

System 2 (Measures 19-21): Treble staff continues with eighth and sixteenth notes, including a triplet of eighth notes. Bass staff has a whole rest.

System 3 (Measures 22-24): Treble staff features a series of eighth and sixteenth notes with fingerings 4, 1, 3, 1. Bass staff has a whole rest.

System 4 (Measures 25-27): Treble staff features a series of eighth and sixteenth notes with fingerings 2, 1, 3. Bass staff has a whole rest.

System 5 (Measures 28-30): Treble staff features a series of eighth and sixteenth notes with fingerings 3, 5, 1, 5. Bass staff has a whole rest.

System 6 (Measures 31-33): Treble staff features a series of eighth and sixteenth notes with fingerings 3, 5, 3, 3. Bass staff has a whole rest.

APPENDIX C

PRELUDE IN C MINOR, BWV 934 AND *PRELUDE IN D MAJOR*, BWV 925

BY J. S. BACH.

FINGERING BY ANDRÉ DUVAL

The musical score is for the Prelude in C Minor, BWV 934, by J.S. Bach. It is a 16-measure piece in 3/4 time, written for piano in C minor (three flats). The score is presented with fingerings by André Duval. The notation is in a grand staff (treble and bass clefs). The piece is divided into four systems of five measures each. Measure numbers 6, 11, and 16 are placed at the beginning of their respective systems. Fingerings are indicated by numbers 1-5 above or below notes. The score includes various musical notations such as eighth notes, sixteenth notes, and rests.

21

Musical score for 'The Rose Tree' in G major, 2/4 time. The score consists of five measures. The treble clef part features a melody with eighth and sixteenth notes, while the bass clef part provides a simple harmonic accompaniment. Fingerings are indicated by numbers 1-5 above or below notes. The key signature has one sharp (F#).

26

5 3 2 5 4 4 1 3 2 1 2 3 5 1 2 4 2 3 2 1

5 3 2 5 4 4 1 3 2 1 2 3 5 1 2 4 2 3 2 1

31

Handwritten musical score for 'The Rose Tree'. The score is written on two staves, Treble and Bass clef, in 3/4 time. The key signature has two flats (B-flat and E-flat). The melody is in the Treble clef, and the bass line is in the Bass clef. The score includes fingerings (1-5) and articulation marks (accents, slurs). The piece ends with a double bar line and a repeat sign.

13

43 4

16

173

APPENDIX D

PRELUDE IN C MINOR, BWV 934 AND *PRELUDE IN D MAJOR*, BWV 925

BY J. S. BACH.

FINGERING BY WILLARD A. PALMER²¹¹

²¹¹ Johann Sebastian Bach, *Eighteen Short Preludes for the Keyboard*, ed. Willard A. Palmer (Van Nuys, CA: Alfred Publishing Company, Inc., 1998), 12-13, 32-33. Reprinted with permission.

Con moto M.M. ♩ = 120-138

5

9

13

17

p

più f

dimin.

cresc.

f

u - - - en - - - do -

21

mf

25

mf

29

p

33

mf

37

f

Molto moderato M.M. ♩ = 54-66 (♩ = 108-132)

p *espressivo*

3

5

7

cresc. - - -

- ③ The D is clear in the *Clavier-Büchlein*. The Bach-Gesellschaft edition omits this D, stating it is believed to be an error, probably because it gives the effect of consecutive octaves with the bass (A-D).

9

mf

do

11

13

15

17

poco rallentando

APPENDIX E

EXCERPTS FROM

SONATA I FROM SIX SONATAS WITH VARIED REPRISES FOR KEYBOARD, WQ. 50

BY C. P. E. BACH.

FINGERING BY ANDRÉ DUVAL

Movement 1, mm. 1-11.

Allegretto

The musical score consists of four systems of music, each with a treble and bass staff. The first system (mm. 1-3) begins with a treble staff melody and a bass staff accompaniment. The second system (mm. 4-6) continues the melody and accompaniment. The third system (mm. 7-9) includes a trill in the treble staff and a dynamic change to *f*. The fourth system (mm. 10-11) ends with a final cadence. Fingerings are indicated by numbers 1-5 above or below notes. Dynamics include *p*, *f*, *pp*, and *ten.* (tenuendo). Articulations include slurs, accents, and trills.

Movement II, mm. 1-5 and mm. 17-21.

Largo

The musical score is presented in two systems. The first system contains measures 1 through 5, and the second system contains measures 17 through 21. The music is written for piano in 3/4 time, with a key signature of two flats (B-flat major). The tempo is marked 'Largo'. The score includes various dynamics: *f* (forte) in measures 1, 3, and 17; and *p* (piano) in measures 2 and 18. Fingerings are indicated by numbers 1-5 above or below notes. Articulation marks, including slurs and accents, are used throughout. The notation includes eighth and sixteenth notes, as well as rests. The first system ends with a double bar line, and the second system begins with a measure rest for 17 measures.

Movement III, mm. 1-33.

Vivace

The musical score is for Movement III, measures 1 through 33, in 3/8 time, key of B-flat major. The tempo is marked **Vivace**. The score is written for piano and includes fingerings, dynamics, and articulation marks.

Measures 1-7: The piece begins with a forte (*f*) dynamic. The right hand features a triplet of eighth notes (F4, G4, A4) followed by a quarter note (Bb4). The left hand plays a steady eighth-note accompaniment. Fingerings are indicated for both hands.

Measures 8-14: The dynamics shift to piano (*p*). The right hand continues with eighth-note patterns, including triplets and slurs. The left hand maintains the eighth-note accompaniment with various fingerings.


Measures 15-20: The music continues with a mix of eighth and quarter notes. The right hand has several slurs and fingerings. The left hand's accompaniment remains consistent.

Measures 21-27: The dynamics return to forte (*f*). The right hand features more complex eighth-note patterns with slurs and fingerings. The left hand's accompaniment includes some rests and eighth notes.

Measures 28-33: The final measures of this section. The right hand has a triplet of eighth notes (F4, G4, A4) and a quarter note (Bb4). The left hand concludes with a final eighth-note accompaniment pattern.

APPENDIX F

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- p. 24: a few measures from Buchner's Quem terra pontus
- p. 31: excerpts from passages transcribed by Soderlund from manuscripts by Sweelinck (17th century)
- p. 150: J. S. Bach's Applicatio (8 measures)
- p. 151: J. S. Bach's Praeambulum in G minor, complete score

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